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ABSTRACT

These proceedings contain 17 papers from plenary sessions, workshops, and other presentations at a conference to consider and clarify major issues in assessment and standards in vocational education and training, including identification of problems and suggested solutions. A summary of discussions follows most presentations. Plenary session papers are as follows: "The Importance of Skills and Standards" (Slee); "The Development of the Vocational Education System in the Federal Republic of Germany from the Special Perspective of the 1992 European Integration" (Laur-Ernst); "United Kingdom Reforms in Qualifications and Standards in Vocational Training" (Fuller); "Issues Affecting Assessment and Accreditation" (Kirby); and "Summary and Challenges" (Hall). Workshops include the following: "Skill Standards in the Textile Clothing Footwear Industries" (Parkinson); "Competency-Based Training: COSTAC Working Party Report" (Murphy); "A Workplace Education (Adult Literacy) Project in the Hunter Valley" (McLauchlan); "More and Better Skills Recognition: Where Are We Up To? Where Are We Going?" (Ashenden); "The Trademen's Rights Regulation Act: National Recognition in the Metal and Electrical Trades" (Newton); "Graded Criterion Referenced Assessment in Competency-Based Training" (Van de Graaff); "Competency-Based Vocational Education: Implications for Teacher Education" (Watson); "What Is Clever about Competency-Based Training?" (Thompson); "Staff Development in Competency-Based Assessment" (Docking); "National Recognition of Experiential Learning for the Hospitality Industry" (Casey); "National Scheme for Accreditation of Independent Business Colleges" (Walsh); "TRAC: A Competency-Based Link between School and Work" (Sweet); "A Whole College Approach to Competency-Based Self-Paced Delivery" (Wickenton); and "Media Package: Assessing Competency in the Workplace" (Barry, Davy). Other presentations are: "The Challenges for Australia in Vocational Education and Training" (Dawkins); "Speech by the Minister of Employment and Further Education" (Rann); and "How Did We Get Here from There" (Ramsey). The program and list of participants are appended. (YLB)

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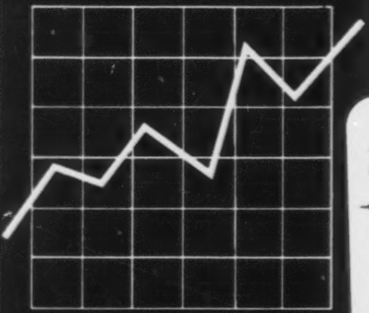
ASSESSMENT AND STANDARDS IN VOCATIONAL EDUCATION AND TRAINING



1990 Conference /Workshop

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ASSESSMENT AND STANDARDS IN VOCATIONAL EDUCATION AND TRAINING

1990 Conference/Workshop REPORT

TAFE
TAFE NATIONAL CENTRE FOR RESEARCH AND DEVELOPMENT

ADELAIDE 1990

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INTRODUCTION

Dr William Hall
Executive Director
TAFE National Centre for Research & Development

The TAFE National Centre for Research and Development held its **Assessment and Standards in Vocational Education and Training** conference/workshop from 1-3 October, 1990. The aim of the conference was to consider and clarify the major issues in assessment and standards in vocational education and training, including the identification of problems and suggestions for their solution.

The conference was structured so that each day started with a plenary session, followed by small group discussion; workshop presentations were then followed by further small group discussion; and each day then ended with a plenary session. This produced a good balance of input, discussion and working session.

The conference/workshop was timely for very obvious reasons. It was attended by about 250 people drawn from a wide variety of training interests. There was vigorous discussion and a good range of issues aired.

The report has been structured so that the discussion following a plenary paper or workshop can be immediately read. Group recommendations are included but, it must be emphasised, these are recommendations from one group only and so do not necessarily have the support either of other groups or of the TAFE National Centre for Research and Development.

The conference was supported in a very practical way by the Commonwealth Department of Employment, Education and Training which funded the two overseas speakers: Dr Ute Laur-Ernst, Head of Department, Educational Technology/Comprehensive Studies in Vocational Education, German Federal Institute of Vocational Training; and Mr John Fuiler, Head, Qualifications and Standards Branch, UK Training Agency.

Other support was given by the State Bank of South Australia, Australian Airlines and Nashua. The organisers were Linda Allen and Gordon Tasker. The detailed editing of this publication was carried out by Penelope Curtin.

PART 1: PLENARY SESSIONS

THE IMPORTANCE OF SKILLS AND STANDARDS

Graham Slee, A.M.
Chairman
National Training Board

The inconsistency in vocational training systems between and even within States has for years impaired our national skill development programs. It has contributed in no small way to the nation's inability to gain a competitive edge in international markets: it has impaired the mobility and therefore the usefulness of our workforce and also contributed to the very high percentage of losses in the skilled labour market.

Clearly, something had to be done to address these problems; firstly, to improve the vocational training system through the application of nationally consistent standards, and secondly, to create an environment in which those who participated in vocational training were encouraged to remain in the vocation of their choice.

The impetus for creating the National Training Board came from two inter-related sources:

- The first was the growing realisation that with less than 20 million people, the variations in our nation's vocational training systems simply should not be permitted to continue. During the 1980s, the level of co-operation between the States was increasing markedly. Reciprocity agreements between the State training authorities, co-operative initiatives involving the TAFE networks and the emergence of the influence of the industry training networks were all positive responses to this dilemma.

- The second, and possibly major impetus, came with the structural adjustment process, in particular, the requirement of the Industrial Commission in 1988, that industrial awards should comply with the Structural Efficiency Principle.

Put simply, every industrial award was to contain a career path with levels which provided opportunities for workers to progress from entry to the peak of that particular career path.

Matched with the career path concept was the need to establish training standards and programs to permit workers to qualify for movement between levels, that is, to progress.

The combination of the desires and requirements of governments together with the advent of the Structural Efficiency Principle clearly indicated the need to provide a focal point which could impartially preside over:

- the identification or endorsement of standards related to career paths under the Structural Efficiency Principle;

- the national move to a truly standards-based vocational training system;
- and finally, the implementation of that system to ensure the national consistency in our vocational training standards.

On the 28th April 1989, Minister Dawkins convened a special conference of ministers responsible for vocational training. At that Darwin meeting, the Ministers from the Commonwealth, the States and the Territories agreed to form the National Training Board.

Now to the Board Itself

In recognition of the fact that the States and Territories have constitutional power in relation to vocational training, it was agreed that the National Training Board would not have formal statutory powers or accrediting authority.

It has therefore, been established as a company limited by guarantee, wholly owned jointly, by the Commonwealth, States and Territories.

It operates within a framework of a memorandum of understanding entered into by the Ministers. Under this, all Governments have agreed to provide and accredit vocational training within the terms of the skill standards endorsed by the Board.

The Board has now been registered as a company and has established its office in Canberra. It met for the first time in February 1990, and meets at least quarterly in various locations around the nation.

The composition of the Board is:

- a chairperson who is normally someone with an industrial background and, at the moment, I have the honour to hold that position;
- two nominees of peak employers;
- two nominees of the Australian Council of Trade Unions;
- one nominee from the Commonwealth Government and from each of the States/Territories.

The staff of the Board will be restricted to approximately sixteen persons. These will include:

- a chief executive officer;
- a development staff, including industry consultants;
- a small administrative staff;
- two staff to carry out the Board's responsibilities under the Training

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Guarantee (Administration) Act 1990.

The Functions of the National Training Board are:

To set or endorse national skill standards in consultation and co-operation with industries:

- for occupations and classifications in industry or occupational awards determined by an industrial tribunal;
- from entry level to para-professional;
- core skills or other skills determined by industry;
- to take advice from industry and government on resources needed to develop standards;
- to promote consistency and naturally the role of the National Training Board;
- to liaise with relevant bodies and provide advice as appropriate;
- to maintain a register of national skill standards;
- to perform the functions of the training advisory body under the Training Guarantee Act.

Standards endorsed by the Board will act as benchmarks for:

- industry bodies;
- State/Territory education and training bodies;
- the register of Australian tertiary education (RATE);
- the Australian Committee on TAFE Curriculum (ACTC);
- accrediting/approving bodies;
- bodies which certify skills;
- bodies for the recognition of overseas skills.

Thus far, I have discussed why the NTB came into existence, its composition and its functions.

I would now like to turn to the subject of national skill standards - the how and what issues related to those standards.

In terms of how, I must emphasise that the National Training Board will not generally, itself, develop skill standards. Rather, its primary role will be to consider proposals brought forward by industry and to determine whether these should be endorsed as national standards. The NTB will thus provide a focal point for the development, endorsement and implementation of standards.

The Board's staff includes industry consultants who will work closely with industries. They will provide guidance and advice with the aim of ensuring that industry standards are presented to the Board in an appropriate way.

State and Territory governments are central players as they have and will retain constitutional responsibility for the regulation, accreditation, certification and much of the provision of vocational training. They have, however, undertaken to pursue these activities within the framework of the skill standards endorsed by the National Training Board.

Before leaving the question of how, I would remind you that there are two categories of skill standards:

- the core standards - these with national applicability; and, secondly
- other standards which may be enterprise, region or State based.

It will neither be possible nor desirable for the National Training Board to set standards for the full range of skills and industrial awards. Rather, it will mainly concern itself with core or essential standards. This will ensure that industry and the States and Territories retain flexibility to develop and add elements to suit local or specific needs. The Board may however, ratify additional standards where this is required by the relevant parties.

Having made the point that it is industry's responsibility to develop its own skill standards, I acknowledge that the National Training Board must take the lead and provide direction for this task. To that end, the Board has recently circulated a discussion paper entitled **Setting National Skill Standards** to in excess of 2 000 interested parties throughout Australia. Final consultation is yet to occur and decisions made - however, the standards development and endorsement process is likely to encompass the following facets:

- a framework of key competence statements;
- an agreement on a range of development methodologies;
- general agreement on the format and content of standards;
- finally, an agreement on quality assurance measures to ensure the integrity of the system.

The consultation processes relating to the discussion paper are progressing and therefore, I don't wish to anticipate the outcomes. It may be however, useful to provide some further comments and I emphasise that these are only preliminary comments on how we may approach our task - in partnership of course, with employers, unions and government.

Framework

There are currently two facets or reference points for vocational training. The first is the industrial occupation levels established under awards. The second is the existing credentialling or certification process which has been with us for some time.

There are however, advantages in reaching outside these perspectives to establish an impartial benchmark for vocational training. The European Economic Community and the United Kingdom have both done this. They tried other methods to establish equivalence between workers who move between nations. They tried equivalence of credentials; and they tried identifying equivalence of wages or industrial classifications. In their experience, the use of these reference points has proven unsuccessful.

In the end, they turned to a system of five key competency statements which permitted all vocational training comparisons to be based against these impartial benchmarks. This meant that those responsible for vocational training did not need to compare occupation with occupation, to compare wage system with wage system, nor did they have to determine equivalence between varying standards of credentials or certificates.

The real advantage of a framework of key competence levels which stands separate from specific industry occupation classifications and credentials is that it provides an impartial reference point. Career paths may be aligned to these levels or parts thereof. So too, may credentials. The development of such a framework is not aimed at diminishing the importance of the industrial relations focus. Nor is it aimed at driving the credentialling process. Rather, by providing long-term and impartial reference points, it may assist in reducing future rigidities in this nation's vocational training system. It may also assist the mobility and portability of our workforce. The potential advantages of an impartial framework are worthy of your consideration and we would welcome your comments.

I now turn to the second issue, that of the process and methodology by which standards should be developed. From the outset, I would like to say that the Board does not intend to be prescriptive in these matters. Vocational training standards may be developed by any number of bodies or organisations. These may be:

- training bodies established under State and Territory legislation;
- the industry training committee network;
- bodies established by the industrial partners, to promote the progress of award restructuring;
- bodies established under industrial awards (such as in the metals industry);
- industry and professional associations;

- enterprises.

Rather than being prescriptive as to who may develop standards, it is suggested that we should adopt criteria which ensure that standards are developed in the best interests of the industry. These criteria will include the requirement for the development body to:

- properly represent the industry;
- have effectively consulted; and
- have consulted on the resource implications associated with development and implementation where appropriate.

We consider that in most cases the development should be undertaken on a bipartite basis that is, involving both employers and the unions.

Ideally however, the development should be on a tripartite basis where the two parties are joined by the governments who will invariably have legislative and resource responsibilities for the implementation of resulting programs.

In terms of methodology, we would intend to be even less prescriptive again. There are many methodologies which are appropriate for the development of standards. Our desire is that the methodology be appropriate to the industry and that it has been effectively applied. Before leaving the topic of process and methodology, the Board has considered a number of important issues which are central to developments.

These include:

- The need to maintain a focus on achieving an outcomes-based system. Far too often, perhaps for very good resource reasons, there will be a temptation to slip back into the traditional inputs systems: to start talking in terms of hours, days or years of training. The focus on demonstrable outcomes should be maintained.

- The second issue is the need for simplicity in the system. Standards-based training will often have to be delivered and assessed in the workplace. It is therefore inappropriate to produce it in a complicated format. It would be counter-productive to create a sophisticated system that simply fell down because of the relative lack of sophistication at the point of delivery.

- The need to avoid gender and other bias. The industry restructuring process and the move to a standards-based system presents us with an opportunity to redress the bias of the past. Putting aside the emotive issues it is simply common sense that we take this opportunity to reduce the level of bias so that those who have been disadvantaged by past practices may be better positioned to make a more positive contribution to the economic well-being of our nation.

- The need to maintain a focus on the future. Given the gestation period for program development and the length of some programs, it may occur quite often that a program being developed today will not bear fruit for some 6-7 years.

If we do not maintain our focus on the future, if we don't take account of future technology, then it is quite likely that the people who graduate next week will be extremely well trained for the last decade but hardly prepared for the decade they now face.

Having touched on the potential for a framework of competence levels, and also on the methods and processes which will contribute to the development of standards, I would now like to mention the possible format and content of standards. These matters are still under consideration. However, they are central to our future undertakings.

Firstly, to achieve a truly standards-based system:

- we are talking about competence and assessment;

- we are talking about outcomes and not inputs.

In definitional terms, the Board considers that:

- competence is related to the ability to perform the activities within an occupation or function to the standard expected in employment.

This is the key and we should use it as a test statement for all our vocational training endeavours. Some may say, 'What's new?' but that may disclose a misunderstanding of the difference between outcomes and inputs. For example, any vocational training system based on a set time is likely to be inputs rather than outputs-based. To talk in terms of years or hours of training denies the differences in human ability, application, dedication and motivation. People may be able to demonstrate competence much earlier than in a prescribed timeframe. Others may take longer and be forced to drop out because of time limitations. Even worse, they may be forced through the training scheme at a lower than desirable competence level.

Output or competence is the key and systems based on inputs should be avoided.

This is a much wider concept than that currently accepted in some sections of Australian industry. It embodies the ability to transfer skills and knowledge to new situations within an occupational area. It encompasses task skills, which many Australian developments have concentrated on, but, in addition, it also addresses:

- task management skills (for management of the group of tasks to achieve the overall job function);

- contingency management skills (for responding to breakdowns in routines, procedures and sequences);

- job/role environment skills (for responding to general aspects of the work role and environments, such as natural constraints, working relationships and the work organisation).

The development of half an effective training system would have limited usefulness and, unless these four interrelated components are addressed, this is the likely outcome.

Let us now look at one development model. The key to this model is the element of competence together with the related performance criteria. The element of competence describes what can be done - it is an action, behaviour or outcome which a person should be able to demonstrate. It is the basic building block and it is identified through the process of analysis adopted by the developer. Performance criteria in turn are descriptions of the standards of performance required for the successful completion of the element of competence. The elements together with the performance criteria build or contribute to units of competence - identifiable and discreet end functions, if you like. Furthermore, the occupation level is made up of the required units of competence and, as I indicated earlier, there may be a number of occupational levels appropriately aligned to the key competence level.

The final issue which the Board is required to address in the process of endorsing national skill standards is quality assurance. Although I don't wish to go into detail at this time it is clear however, that in order for the Board to satisfy itself that nationally consistent standards are being implemented, assurances will be required in relation to:

- the effectiveness of training delivery;
- the credibility of assessment processes;
- the arrangements for monitoring or validation;
- the integrity of the credentialling process; and
- the system for review.

How does the work of the TAFE National Centre for Research and Development fit in with all of this? First, I would like to acknowledge the support given by the Centre during the setting up of the NTB. In many ways, the structure of the NTB has been modelled on that of the Centre. Second, continued good communication between the two organisations will be essential and, as Chairman of the Centre Board as well as of the NTB, I shall be able to assist in this. The Centre is Australia's national vocational education and training organisation, and is also an important data base. It has developed good links with industry and commerce as well as with government departments. The Centre has two broad areas of activity - to undertake and encourage research and development projects that are of national significance to TAFE, and to disseminate information on research and development in TAFE. In recent years, the External Consulting Division has successfully earned substantial sums of money to supplement the Centre's core grant, thereby broadening its activities and its influence. The National Training Board will require some research to be undertaken and the Centre could be an appropriate body to do that work. There seems to be little point in there being more than one group doing national training research. Relationships still have to be worked out, but I suggest that there must be good co-operation and co-ordination between the NTB, the TAFE National Centre and the Australian Committee for TAFE Curriculum. Also, stronger links will need to be established between the Centre and COSTAC. These are important days and the number of skilled researchers within Australia is limited. We must use those we have as efficiently and as effectively as possible.

SUMMARY OF GROUP DISCUSSIONS FOLLOWING GRAHAM SLEE'S PAPER: THE IMPORTANCE OF SKILLS AND STANDARDS

General

Each group was given a list of four questions relevant to Graham Slee's paper which they could use as a starting point to generate discussion of the paper. Some groups adhered to this framework while others did not, their discussion focussing upon elements of the paper they believed to be controversial, or upon broader issues within the changing context of vocational education and training.

Discussion Questions

(i) How will the functions of the National Training Board (NTB) affect your organisation's activities?

This question was basically used as a means to explore the role and responsibilities of the National Training Board and its relation to vocational education and training. Some of the issues raised included the following:

- will the NTB be yet another bureaucratic organisation or will it act as a body which truly serves Australia's best interests by setting and co-ordinating national skills standards across the States and Territories?
- the role of the NTB is crucial in developing a nationally consistent vocational education and training system. The Board will need to work rapidly to explain its role and organisation.
- what is its relationship to the Australian Committee on TAFE Curriculum (ACTC) and State/Territory accreditation bodies?
- the NTB could produce standards at a national level in line with nationally accepted practices but its role is to endorse standards not to develop them. Furthermore, the Board is currently developing criteria for standards but there is a lack of skilled expertise in this area, a problem which needs to be overcome if the Board's task is to be successful.
- a problem may exist with the NTB's acceptance of the UK model whereby wages are linked to level of competence. This is unique and may provoke some interesting questions.
- one group disagreed with Graham Slee and argued that the NTB's mechanisms whereby States deliver according to set skills standards does not necessarily mean that there needs to be uniformity in training programs. There can be uniformity in policy and in learning outcomes without uniformity in structures across

States and training programs.

(ii) How do you see vocational training standards being developed?

Again, this question was used as a starting point in the discussion of standards and their importance in national vocational education programs. Issues discussed included the following:

- the development of national standards will have a significant impact on training institutions and TAFE colleges and their importance and significance should not be readily discounted, e.g. materials, methodology and assessment.

- the cost-benefits to the Australian economy will be substantial if common standards/courses are implemented.

- as for the standards themselves:

    - they should be based on a skills competency audit to build up skill profiles. Different industries may use different techniques, for example, national consultation process or small groups of industry experts;

    - they should not be too vague, broad or general;

    - their development necessitates designing assessment mechanisms. Workplace assessors need to be trained to assess competency in non-TAFE components;

    - their development will also have a significant impact on industry in terms of the time and money expended in establishing standards as well as the financial contribution towards the costs of training;

    - will they be applicable to all enterprises in the same industry?

    - NTB standards should have supporting skills such as communication and conceptual skills built into them.

- in the context of the development of performance standards, the NTB has indicated that these will be developed by industry but what does the term 'industry' encompass? This may complicate the issue. The importance of industry consultation with the TAFE/training sector in the development of standards was emphasised.

- national standards and therefore national programs take considerable time to be developed. In addition, the difference across the States and Territories needs to be accommodated. But it must be kept in mind that the small Australian population can't support too much diversity within national courses. The process of national course development (a natural outcome of the development of national standards) needs to be clarified and streamlined, and in addition take into account transferability and national recognition.

- furthermore, the resource implications of national programs need to be addressed: industry must acknowledge its responsibility in this area. Perhaps a national resource planning process is necessary.

(iii) Does anyone in the group have relevant experiences they can draw on by way of example?

This question promoted little discussion from the groups with only one example of relevance cited: the Commonwealth Public Service is presently undertaking award restructuring and is experiencing difficulties in writing standards for managers.

(iv) Is Australia's assessment base presently adequate to the task?

Answers to this question were divided, with some groups saying yes, others no. One group who answered 'no' then qualified this answer by citing a case of a successful program - Work Skill. Other issues raised included:

- TAFE may have to become an assessment advisory organisation, but in consultation with industry. TAFE/industry co-operation therefore needs to improve.
- significant resources are required for effective implementation of competency-based assessment.
- competency-based assessment can only be carried out by industry.
- one group argued for a criterion-referenced approach but CBT doesn't grade people and this may be desirable in some instances. In this case it may be useful to incorporate a non-referencing element to accommodate this. Is there room for higher level (not just pass/fail) grading in CBT?
- issues of assessment of prior learning are important; also perhaps there exists a need to assess secondary school competence before entry into vocational education.

General Discussions Resulting from Graham Slee's Paper

The workshops generated heated discussions on topics relevant to various aspects of Graham Slee's paper and to the competency-based training and vocational education debate in general. These issues were:

The role of vocational training providers, more particularly TAFE systems in this changing training climate with its emphasis on skills development

- TAFE is facing a dual challenge in that it has the role of providing advice to industry on CBT, but it must also develop awareness of, and skills with CBT amongst its own teachers;

- industry management is being challenged to look at past practices and place more value on training. Also, who pays for enhanced vocational training? Should it be financed from the public purse or from industry?

- issues of quality, articulation and accreditation. Effective articulation is particularly important in areas such as engineering (e.g. metals) in order to allow movement from trades areas to associate diplomas;

- as far as curriculum and syllabus development are concerned, a tripartite approach must be used because the curriculum is also going to be used by industry trainers;

- this skills of teachers/trainers are critical for success. Staff development and skills upgrading are essential elements in the implementation of enhanced training programs, as is initial TAFE teacher training.

Competency-based training

- there exists a need to reverse the historic regimentation of the vocational education system. The system now needs flexibility and adaptability and a change in the role of teaching. With competency-based, self-paced learning, teachers will become facilitators;

- the concepts of modularisation and multiple entry and exit points are desirable elements of CBT;

- consultation with industry is essential in the design of CBT courses.

Secondary schooling

- secondary school students are not equipped with the skills, knowledge and attitudes needed for entry into the workforce;

- TAFE/education interface should support some industry input into the secondary school curriculum;

- what about introducing prevocational training into secondary schools?

- the concept of competency-based training and its application could also be introduced into secondary schools.

Issues of access and equity

- the pace of change places an emphasis on the need to address equity issues. Women, NESB people, Aboriginal and disabled people must have access to higher skills levels. It is essential to ensure that economic imperatives don't completely dictate the directions of the future with social justice strategies fitting in where possible;

- access will be a major problem for country students. A flexible delivery approach must be encouraged and accorded equal status with normal delivery methods.

THE DEVELOPMENT OF THE VOCATIONAL EDUCATION SYSTEM IN THE FEDERAL REPUBLIC OF GERMANY FROM THE SPECIAL PERSPECTIVE OF THE 1992 EUROPEAN INTEGRATION

Dr Ute Laur-Ernst
Federal Institute of Vocational Training
Germany

Your conference and workshop on **Assessment and Standards in Vocational Education and Training** focuses on a complex problem which is quite familiar to all those who are working in vocational education affairs in the FRG. The main features of our initial vocational education are the 'dualism' and the state-recognised* standardisation of:

- occupations at the skilled worker, businessman, administrator or craftsman level; and
- vocational qualification profiles and training outlines for companies as well as for schools.

In this regard the 'German model' differs from many other national education systems. Learning in schools and learning in the world of work (in-company training) side-by-side, is typical in the 'dual system'. There are various social, cultural and political reasons for the evolution of such a vocational education system and for the fact that standardisation of vocational training has been the tradition since the beginning of this century. Both are results of historical processes, social conditions, and personal initiatives.

In consequence the 'German model' cannot be transferred to another society without modification, or without awareness of the cultural and political background. Simple 'export' or 'import' does not work. Therefore the facts, considerations and experiences I will speak about should help to identify the advantages and disadvantages of the 'German model' from your point of view. Then you can weigh up which items of our model could be useful for the solution to your problems of formulating and implementing national and cross-industrial vocational standards in Australia.

International co-operation in vocational education and training is gaining increasing significance. In Europe the growing exchange of theoretical and practical information has its essential roots in the planned economic European integration in 1992/93. But this trend towards co-operation is not only observed in Europe. We all participate in a world-wide internationalisation on various levels and in many areas; cross-cultural-learning becomes more and more important. A clear piece of evidence for this is your inviting a representative of the Federal Institute of Vocational Training of Germany to speak at this conference and discuss educational problems with you.

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* 'state-recognised' means recognised by the Federal Government, so the standards/regulations are national ones concerning the vocational training in the companies.

I intend to give you a survey of our standard-based vocational education and in doing so I will concentrate on the following issues, in which you probably are most interested:

- state-recognised occupations as a reference system for vocational standards;
- methods and procedures for developing standards;
- some problems of assessment;
- important aspects of implementing standards and transforming them into training programmes.

To solve these problems, different approaches are possible and available. So I will mention in the context of each issue, some alternatives and then focus on the 'German model' and its evaluation in the light of the current European integration.

State-recognised Occupations as a Reference System for Vocational Standards

A first question to be answered concerns the reference system of the standards. To which items or framework should the standards be related? There are - in my opinion - three options:

- The standards refer to concrete task groups on a definite competence level. These tasks are job modules which can be combined in different ways. The complexity of these tasks potentially varies within a wide range, from simple small elements to broad task areas. With regard to the decline of 'Taylorism' that we are observing in German companies, (and this could be a world-wide trend in work organisation in all industrialised societies), reasonable tasks with a rather high complexity should be principally aimed at as reference units;
- Knowledge, skills and abilities which are assumed to be needed as qualification bases for an occupation area without a narrow relationship to concrete tasks or workplaces are standardised; or
- The framework is based on state-recognised occupations. That means that the standards are linked with definite groups of several kinds of tasks and the corresponding qualifications needed, which together form an occupation (or 'profession' as we say). This is the 'German model.'

In Germany there exist today 377 recognised skilled occupations. The number has been remarkably reduced in the past 20 years. Each occupation is generally described by its main features and is localised in one of 13 so-called 'occupational fields', e.g. 'economy and administration', 'mechanical engineering', 'electrical engineering', 'health and body care' or 'agriculture'. Furthermore each occupation is defined by a vocational regulation which prescribes the contents (tasks) and qualifications to be taught and to acquire, and the time in which this should happen. I wiii explain these vocational regulations later on.

The special advantages of occupation related standards lie - in my opinion - in the following aspects; but it is paramount that they - the occupations - are broadly designed enough and that they take into account the individual's needs.

- Occupations are connected groups of tasks which form a polymorphic qualification profile and hence a quite broad basis for performing a variety of concrete jobs.
- Occupations have long-term relevance and are important fundamentals for continuous education and learning.
- Occupations grant the access to a definite level of payment - recognised by industry and unions - and locate the individual in society by awarding a specific social status.
- Occupations therefore protect in a special way the individual's interests and ensure social and educational privileges.

On the other hand we must be aware of the risk of the inflexibility associated with these recognised occupations and the procedures required to establish them. They are highly complex packages of tasks and qualifications; accordingly they cannot easily be changed. Every time a renewal of an occupation or even the recognition of a whole occupational field becomes necessary due to innovations in technology or work organisation, or to changes in essential cultural and social dimensions (e.g. changed attitudes of young people towards work and leisure time, or the increasing knowledge standard and age of school leavers), much manpower and time must be expended to carry out this work. Besides this, some occupations - particularly traditional crafts with a long history - are to some degree 'resistant' to any substantial change. In consequence great efforts on the educational, social and political levels must be made in these cases to reach more adequate and forward-looking qualification standards.

With regard to the rapid development in the world of work and the necessity to answer efficiently and quickly often unforeseeable challenges, flexibility and adaptability become more and more important aspects of each educational system. High specialisation in primary vocational education and training is unproductive and contradictory in the light of the uncertainty of future work requirements. The increasing demand for flexibility and for coping with new, unknown work situations was, and is -

in Germany - a decisive reason for now designing occupations with a remarkably wide scope of tasks and qualifications than before. New social, intellectual, and motivational abilities like autonomy, 'system thinking', the ability to communicate and co-operate, creativity and so on, are added. Skills formation and personal development are integrated in a holistic concept. A good example for such reorganisation and improvement of the German vocational standard concept is the innovative structure of the occupational field 'mechanical engineering'.

And what happens in the European Community? Do all countries go in the same direction? We observe in many countries (e.g. England, France or the Netherlands) the same tendency to broader general abilities including vocational training concepts. However, the typical German system of standardised skills occupations is not directly comparable to the other national systems and structures and vice versa. Every country has its own model. The 12 countries of the EEC have now agreed to describe job-activity profiles on five key competence levels.* They will be used as an operationalised classification system which may allow better assessment and effective comparison of the output of vocational training (and also of job experience) in the different European countries. To the work world this clearly related approach seems more promising than the first attempt which aimed at determining the equivalences of acquired qualifications proved in examinations and fixed in certificates, a procedure which has turned out to be highly laborious. It is assumed that the real job-activities in the various countries have much more in common than the vocational training programmes. However, such an instrument of comparison is not linked with mutual recognition of the certificates/vocational qualifications. This is a political decision not yet made.

Methods and Procedures for Developing Standards

There are a variety of methods for preliminary analyses to develop vocational training standards; e.g. task, functional or occupational analyses carried out by using more or less extensive observation scales and/or questionnaires to seek representative samples from job-holders; experts' rating to identify the abilities 'behind' the observed activities in performing a task; case studies; 'curriculum conferences' to construct and to legitimate qualification profiles etc.

Each of these methods for gathering and evaluating data has advantages and disadvantages; therefore each of them has critics and followers. In Germany a special scientific methodology for developing the educational regulations is not officially prescribed, but a basic agreement exists. Usually a combination of quantitative and qualitative methods is applied. The experts in the Federal Institute decide (after consultations with representatives of unions, employers and ministers), which method in a given case is appropriate and can be effectively used under the prevailing circumstances.

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* This is one of the important tasks of the CEDEFORE (in Berlin) to support and manage the development of such comparison instruments.

Although free choice in methodology exists, also in other countries, it is none the less relevant which one is actually applied, because the method influences strongly the quality of data gathered and therefore ultimately the vocational programme. The following aspects should be taken into consideration:

- The findings must not be restricted to the present situation; validity and 'reliability' with regard to future changes should be aimed for.
- Work is a dynamic, interactive process with interrelated tasks, activities and people. Accordingly, investigation should not be done through the perspective of 'isolated' places of work, neglecting that they together form a complex network. A contextual and 'systemic' understanding of work processes is necessary which takes into account in-company informational integration ('CIM').
- The description of work situations should not be reduced to special (technical, economic, etc.) tasks and skills. General social, intellectual and emotional abilities must be included, because characteristics such as teamwork, communication, making independent decisions, planning and organising work on one's own, are important aspects of efficient performance.
- The interests and goals of industry, commerce and trades cannot solely determine the framework whereby vocational standards and learning aims are defined. Those doing the work - their wishes, goals, experiences and competencies must not be ignored. Vocational training should also contribute to personal development. As a consequence, vocational standards should not be formulated without reference to cultural and social conditions and changes.

The findings of many 'classical' methods of occupational analyses are one-sided and don't take account of future developments; nor are they complex enough to match a holistic concept of vocational education. The objectivity of and generalisations made from representative research results and which are often claimed as very important advantages, are - in my opinion - not the essential conditions for developing vocational standards and curricular concepts. The exactness of these findings tempts decision-makers to believe that they have a solid and reliable information base. In fact this is often only a small although exact detail of the present work reality which can, however, lose its significance rapidly by new means of production/work, changes in work structure, in-company organisation, or through product innovations and new customers' requests. Research findings are overall an information base - neither more nor less. In the next step educational and political decisions must be made. How does this happen in Germany?

For each recognised skilled occupation vocational regulations and examination requirements are formulated in an often time-consuming and difficult negotiating process between representatives of employers' federations and unions. Both social partners sit around the table and discuss the qualifications needed for an occupation on the basis of research findings and practical experiences. This discussion is sometimes marked by different or even controversial educational and social ideas. However, in the end employers and unions must agree. Once agreement is reached, the consensus-based vocational regulation is confirmed by the Federal Government (the Federal ministry concerned). This ordinance then describes 'minimum qualification standards' and every firm which provides vocational training is obliged to design its programme around these prescriptions. The school as partner in the dual system also designs its curricula outlines to accord with the training regulations. This means that overall, the vocational education system in Germany is quite strongly influenced by the occupational system - by management and unions - compared with other national education systems, particularly those which have only a school-based vocational education without systematic participation of industry, either in the construction of standards or in the vocational training itself.

In Germany therefore, the wide discrepancy - often observed in other countries - between qualifications needed in work processes and qualifications acquired in vocational education does not exist to the same degree. Nevertheless, vocational training or vocational regulations in Germany are not always and in every case perfectly adapted to the realistic requirements. However the discrepancy is far less dramatic than in other systems. Moreover, we are continually rethinking this issue - as mentioned above. The congruency between vocational training objectives and current work requirements is certainly a critical issue.

Back to the 'minimum qualification standard'. What does it mean? It certainly does not mean a low qualification level. The requirements established in the vocational regulations are rather high: they were even raised in past years due to the new qualification demands of industry and commerce. Therefore more often nowadays firms complain that the standards are too high and that slow and weak learners are stretched too far; a minority claims the opposite. But everybody is free to qualify trainees better than officially required, and indeed many companies realise this and aim for a very high level of competence.

Compared with the qualification level in other European countries the competency expected from a skilled worker ('the Facharbeiter'), businessman or craftsman in Germany seems to be quite ambitious. However, it is difficult to make a clear general statement on this issue because of in-system differences, and in addition an exact comparison between the countries is not yet possible.

'Minimum standard' means, that every company or supplementary training organisation undertaking initial vocational training must qualify the young people at least to this level. Each trainee is entitled to this minimum standard. Nevertheless investigations carried out by the Federal Institute a few years ago on a representative sample of companies showed that a number of firms - often small or medium ones - were, and are not able to keep perfectly to the standards and rules.

Therefore, the governmental support of these firms is a priority. So-called 'supra-company training centres' are built up and financed by the Federal Government and are advised by the Federal Institute.

Developing standards is something which is not 'done once forever'. As a consequence of technical, organisational, social and cultural changes, standards must be checked and revised. (This is one main task area of the Federal Institute.) Besides new general qualifications like co-operation, communication, autonomy or flexibility, new contents must be included, e.g. knowledge of work organisation, of environmental pollution and rules or procedures to avoid it, interdisciplinary information on 'neighbouring' professions (e.g. the mechanic learns something about electrical engineering and electronic controlling and vice versa; the electrician learns something about machine tools or production technology).

With regard to European integration, so-called 'European qualifications' are worthy of discussion. There are two main questions:

- Which special qualifications are required in order to work in another country? These may be to speak and write in a foreign language (indeed there are a number of different languages in Europe), and to have some knowledge of the work conditions as well as of social and cultural characteristics of the other country. A clear decision in this area has not yet been made; and

- Which qualifications are needed for different jobs in the same occupational family or field? These qualifications in common could form the basic training programme or the core curriculum in an occupational field of each country. In Germany such a broad vocational basic training exists. The discussion of this kind of 'Euroqualification' also continues.

Some Problems of Assessment

Problems of assessment accompany the whole procedure of developing, implementing and using vocational standards. They appear at the beginning when the relevance of qualifications for actual and future needs should be estimated and they gain high importance with regard to examinations and certificates in between, and at the end of educational courses.

The impossibility of forecasting exactly and reliably the future qualification needs is meanwhile recognised and accepted by most experts. On the other hand it is necessary to look into the future (and experts in vocational training require that future aspects must be taken into account). The solution which was found in Germany to this problem was the reduction of specialisation in vocational training and the increase in support for personal development - as described above. Therefore, these kinds of assessment difficulties are overcome to a special degree. But others appear or are still being discussed.

I will focus here on two topics only in the context of vocational examinations[*]:

- firstly, on some difficulties in the 'objectivity' of assessment; and
- secondly, on the growing problem of assessing general personal abilities.

Twenty years ago we observed an 'objectivity movement' in Germany. The examinations in vocational training and education seemed to be carried out in a rather individual way, although the examination requirements are also fixed in the vocational regulations. The questions asked and the concrete work tasks to be performed varied from town to town, from Bundesland to Bundesland (I exaggerate a little). In this situation voices demanding standardised examination questions became louder.

This request was met by another, an economic one: the interim and final examinations require a lot of time, personnel, energy and money. To reduce these expenses, computerised examinations were recommended and accepted by the chambers of industry and commerce which are - as well as the crafts chambers - responsible for vocational examinations in Germany.

For several years, particularly when used in association with the renewal of vocational regulations, the computerised questions have become more and more discredited. The following are arguments against them:

- These questions ('yes-no' or 'multiple choice') are over-simplifications of the real tasks/situations; they are one-sided, not practice-oriented enough and do not match sufficiently the qualifications needed.

- In spite of vocational standards, in-firm training (as well as school education) can vary within a wide range depending on the competency and motivation of trainers, the concrete job tasks a firm has to perform, the equipment and so on. In small and medium-sized companies where 'training-on-the-job' (not in separated training workshops) is usual, the same qualification can be acquired through different work experience. The standard question neglects this fact.

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[*] There are two examinations in vocational training, the first after 2 years (interim exam) and the second, that is the final examination. This examination encompasses a written and an oral exam and a concrete work task.

- 'Objectivity' as an abstract and formal requirement of assessment may produce more injustice than an examination which takes the specific learning conditions and facilities into account.

Assessment based on knowledge of 'isolated' items or the availability of simple operations and skills has lost a great degree of support. A holistic approach to vocational training which emphasises the necessity of complex, forward-looking qualifications is now preferred.

In addition, a new problem of assessment has appeared due to the importance of 'personal skills' such as co-operation, autonomy, planning and organising one's own work, social sensitivity etc. How can these personal abilities which are grounded in socialisation conditions be tested? Should they be examined anyhow? The discussion on this issue has not yet found a final solution: the opinions are often controversial. In fact this is a very difficult and sensitive problem, which will be analysed and discussed through theoretical and practical perspectives in the coming years. Rather simple and pragmatic assessment instruments and procedures have meanwhile been developed (e.g. observation scales). Several proposals on new kinds of exam tasks have been made and recently applied or are under systematical investigation. These tasks must also allow the evaluation of social, methodical, and motivational abilities alongside the assessment of special skills. On the other hand, such an assessment should avoid general statements on the individual's personality.

This is one side of the problem; the other side concerns trainers and members of the examination board. They need information enabling them to perceive and assess these complex abilities in a reasonable and differentiated manner. Without additional courses they will not be successful in doing this and this has a serious implication: it is generally known that examination requirements and practice have a great impact on the actual organisation, objectives as well as on the subject matter of vocational training. That means that the examinations reflect what is going on in the concrete programmes. Therefore, when the new qualifications are not in any way 'tested' or taken into account in the examination tasks, they lose relevance for those undertaking vocational training as well as for the young people. This is an essential fact which must be realised.

Important Aspects of Implementing Standards and Transforming them into Curricula Outlines and Training Programmes

In Germany the vocational regulations are, as outlined above, statutory orders of the Federal Government. Once enacted every firm or vocational training organisation is obliged to follow them. These rules describe a 'skeleton curriculum' with training goals, teaching contents based on a holistic qualification concept, and an estimated time schedule required to carry out the vocational training.

The implementation into actual practice is not merely achieved by publishing the vocational ordinance in the governmental bulletin. It is here that the real work begins; that is, transforming the regulations into efficient in-company vocational training programmes. The same process starts in parallel in the schools which have adopted curricula outlines.

What steps must be taken? Which questions are to be answered?

The 'skeleton curriculum' in the vocational regulation must first be transformed by the experts responsible in the companies into a concrete training plan which is adapted to the prevailing conditions. In implementing this concrete training plan the decision-makers must address the following questions:

- Where can the various qualifications be best acquired by the trainees? For example, in training workshops or at the working place, in one's own company or in a 'supra-company training centre'? Which workplaces deliver the best learning chances? In which sequence should these workplaces be used by the trainees? General and specific questions of learning organisation must be settled.

- Are the trainers (teachers) competent enough to teach the new contents and qualifications? Generally, at least a special but often a fundamental further training becomes necessary. This additional education includes technical subject matters and also educational issues. For a long time only special skills were taught and the educational aspects remained largely neglected. However, in the past years the significance of better and more adequate learning models and strategies has been recognised. As a consequence actual 'training of the trainers' programmes stress the improvement of educational competency.

Another aspect of preparation often missed, concerns the lack of actual work experience of trainers. This is especially a problem for those who do their educational job over many years in separated departments or in training workshops of an enterprise. They have lost contact with the world of work and do not exactly know what is going on in the current industrial context. They need to 'freshen up' on work experience.

In other European countries, for example in France, this problem is partly avoided by an 'alternating concept'. The trainers work about five years in the training department, then they return to the working area where they came from. Other enterprises (and trainers institutes) plan periods of practical training for their trainers. In Germany, teachers in vocational schools suffer much more from lack of working practice than most in-company trainers, but the latter also need actual work experience.

- A further question: is there a need for additional investment in equipment and machinery to keep to the vocational regulations? This question has gained increasing importance in the past years due to the advent of information technology and its significant impact on work requirements and work organisation. Computer literacy, programming and handling computerised machines or flexible production systems are new qualifications which can be only learned by actual experience working with the computer or the numerically controlled machine - at the very least with the help of 'simulators' in the beginning of the training.

The discussion about the 'best learning environment' was stimulated in Germany by the high cost of these modern computer-based production systems. To buy machines only for training purposes seems to be an unacceptable investment for many companies, including the big ones. This economic argument meets with educational considerations stressing the workplace as the most efficient learning environment. In Germany we are observing today a strong tendency to accept this point-of-view. Fifteen years ago the opposite was favoured - especially by educational experts in universities and other scientific institutions. So, many people are now wondering why they have changed their mind radically. But there are good reasons to rethink the 'old' ideas.

- Undoubtedly to learn in a real working situation under the usual conditions of work performance is quite different from learning in classrooms or in training workshops. In such learning situation decisions and activities have useful results, but also not anticipated side-effects. The young people do not work 'for nothing', but for a realistic aim; for example, to sell or to repair something, to construct or to write something - in which somebody else is interested. This facilitates often much more than 'senseless homework' or repetitive exercises in a training workshop. Moreover, the trainee is involved in a whole working process. Mistakes, he/she makes, have effects on workplaces of colleagues; so he/she must try to behave as responsibly, and reasonably as possible. Furthermore, communication and co-operation become necessary. In all, for many trainees learning in real situations supported by a competent job-holder or a trainer, the learning/training environment is much more relevant and exciting than learning under school conditions.

  On the other hand, the opportunities to learn through real work are often restricted; for example, working on an assembly line or in a highly automated production process where nothing is seen but running figures and lines on a screen and where the trainee cannot do anything - seems to be senseless and ineffective. Therefore a general 'dogmatic' preference for learning-on-the-job is as problematic as pure school-based learning off-the-job. Trainers must be able to evaluate the learning chances of different places and situations of work. They have to learn how to combine them in view of the acquired competency level and they must know how to complete the training on-the-job through supplementary theoretical help.

- And last but not least: which training or learning methods are most likely to achieve the qualification goals and also fit the

> target group? The longtime recommended and practised training methods in vocational training have remarkably changed in the last five to ten years in German companies, especially in the big ones. The traditional concepts of training by demonstration and imitation by instruction and informing, seem no longer to be accepted as the most effective strategies. We observe a paradigm change in which the trainee takes the active role in the learning process. This means that personal experience - to try something out in his/her own way, to apply his/her own learning strategy and to explore new situations are all strategies that are gaining favour. Self-controlled and self-organised learning, social learning, learning in a team, 'discovery' learning are the modern and promising approaches used to acquire the complex qualifications, since autonomy cannot be gained by instruction; co-operation must be experienced and cannot be learned by listening to the speeches of the trainer; a sense of responsibility might not only be demanded but the necessary competency and conditions to show it must be established. There is a change in educational thinking. However, the 'everyday vocational training' often follows the traditional principles: further education of trainers must still be undertaken to make progress.

Analysing this situation three conclusions are to be made:

- Qualification standards undergoing development should not be performed without reflecting on alternative educational concepts.

- The 'users' of the standards, (that means teachers and trainers) must be prepared early enough to do their new job.

- Several teaching and organising aids, learning materials, films/videos, descriptions of examples how to teach in the new way etc. should be available to support the implementation process. Research projects and 'pilot projects' (so-called 'Modellversuche') should be carried out to locate and evaluate innovative as well as practicable educational concepts. Such supporting tasks are being performed in several departments of the German Federal Institute of Vocational Training.

How does the situation stand in relation to the educational innovations in other European countries? Is there the same 'new wave' in educational concepts and technology? I am afraid that I cannot give a reliable answer. Surely, in the other countries also great efforts are being made to improve vocational training methods. Unfortunately we have not been in a position to survey this issue due to a lack of systematic cross-country research in this field.

Uniform Vocational Training in Future Europe?

Will the 'German model' disappear due to the European integration? No, that is not intended. Early attempts in harmonisation failed. Each national vocational education system is related to a specific economic and social infrastructure and is a result of a long historical process. Therefore the European countries do not agree in standardising the systems; they do not want to equalise the national differences. The new European slogan is: 'variety in unity'.

More important and more efficient is the exchange of information and experience, multinational co-operation to find reasonable solutions to the actual difficult problems by which each country is confronted; for example, how to improve the chances of the unemployed by retraining? How to support women to re-enter the labour market? How to gain more consciousness of the narrow relationship between work and natural environment and how to acquire competency to solve the environmental problems?

Also cross-cultural learning in vocational training affairs should be the main goal. In observing and analysing the strategies and developments of other countries, in evaluating their successes and their failures we all have the chance to learn and to make progress in our own national educational policy and practice. Step-by-step there will be a better understanding of educational policy and practice of other countries - and perhaps at the end of this process there will be a specific kind of harmony?

The future European policy will not be limited to the 13 countries of the European Community: we have to look to East Europe, and to support those countries in developing a vocational education and training concept which aims to develop a autonomous personality living in a democratic society. Such a strategy helps to achieve not only economic progress but also to promote a human and social structure of the intended European House. However, Europe is only a part of the world. In the face of globalisation we need good relations with overseas countries: we should exchange more and more information and concepts with our 'long distance neighbours', like Australia.

UNITED KINGDOM REFORMS IN QUALIFICATIONS AND STANDARDS IN VOCATIONAL TRAINING

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Good morning Ladies and Gentlemen. I am delighted to be here in Adelaide for this important conference, and I am most grateful to your Department of Employment, Education and Training for inviting me and arranging my visit here. I have been aware that work in this country on the definition of standards and qualifications was running in similar directions to that in the United Kingdom. I am anxious to learn from your experiences, and I hope that in explaining my own work that you will find interesting parallels with your own. I propose to speak for some 30 minutes with the help of some OHPs before taking points and questions. I shall try to avoid too much UK jargon.

I propose first to say a few words about the current education and training scene in the United Kingdom. Then I shall describe our work to produce reformed vocational qualifications, and why we are engaged upon it. I shall then talk about some of the issues we are having to face in completing the work, before closing with a few words about the qualifications scene in the European community as a whole.

I suspect that our key issues in education and training are not so dissimilar to yours. Increasingly, we have highly competitive market competition in which technology is widely available to all, and where the only difference between individual companies, and increasingly between countries, is the competence, the quality and the skilled performance of the people employed.

Successive UK Governments have tried a variety of approaches to the skill supply over the last 30 years. We have not yet found a permanent arrangement to secure adequate quantity and quality of training that can deal with times of both high and low unemployment: We had for many years, industrial training boards which involved employers and trade unions in each of our major industries, raising funds through an industrial levy and redistributing these in the form of grants. Between 1974 and 1986 we had the Manpower Services Commission which involved the social partners in the machinery of government. During this time the Government provided funding to maintain numbers in apprenticeship schemes, to run adult retraining schemes available to all individuals, and to develop and implement our youth training schemes. Governments have always felt that employers are contributing insufficiently either to meet their own needs or the needs of their industry or community.

We are now embarking on a completely new initiative - the establishment of Training and Enterprise Councils (TECs). These TECs are similar to Industrial Training Boards in that they attempt to divide up central responsibilities - this time on a geographical basis rather than on defined industries or sectors. We are laying great stress on the key role of employers in leading the new TECs. They will have full responsibility for delivering government-funded programmes in their localities and there will be some 80 covering the whole of England and Wales and similar arrangements in Scotland. So the TECs will be responsible for securing delivery of vocational training and education programmes. But we need to make sure that they have a national structure of qualifications in order that their activities can be properly channelled. This brings me to the UK reform programme.

The advantages of standards-based training have been emphasised in the UK for many years - indeed this featured as a component of the 'New Training Initiative' (NTI) which signalled a new direction in training in 1981. It is however, only since 1986 when we began to develop a major reform to our Youth Training Scheme that we have organised on a national basis, development work towards standards and qualifications.

We realised around this time that by comparison with some of our major competitors the UK workforce was significantly under-qualified. (See Figure 1.) We recognised our need for a competent and better qualified workforce, and that an improved system and structure of qualifications was necessary to assure the quality of the workforce. We had many vocational qualifications on offer and a complete structure of academic qualifications running through O levels at 16, A levels at 18 and degrees taken at universities - but virtually no systematic links between the 2 structures. Indeed many felt that our qualifications structure got in the way of effective learning rather than assisted it. (See Figure 2.)

Let me briefly describe the system as it existed in 1986. We had - and indeed still do - several national independent validating and examining bodies offering qualifications across all the different industries. At higher levels, professional institutes often run examinations to ensure the quality of their profession is maintained. Increasingly however, industry training boards and similar bodies were setting themselves up to define and measure individual performance against standards. The system was unstructured and very difficult to understand. (See Figure 3.)

The were several reasons why we felt we must reform our vocational qualifications system. First we needed some kind of measure for the output of our training arrangements - how many people needed to be trained and developed and to what measurable standards? Secondly, there were far too many qualifications, covering different occupations and levels in a very haphazard way. Thirdly, we all know that individuals learn in the workplace doing real jobs, yet very little of that contributed in any direct way to the obtaining of a competence-related qualification. Fourthly, although it is employers who benefit from qualified people, the influence of employers in establishing the qualifications to be undertaken was very small indeed. Fifthly, we had separate arrangements in England, Wales, Scotland and Northern Ireland and even within English regions. At the very least we needed precise equivalences between existing qualifications to be established. Sixthly, so many qualifications could only be pursued by people in fixed training centres, participating in specific courses, and using prescribed methods of learning, we needed to detach the objectives of learning - the standards of performance required - from the mechanisms used to get there, and to ensure that individuals could learn at their own pace using their own methods and in whatever way they found helpful. Seventh, we wanted qualifications not to be concerned with aptitude or potential or trainability - but with real evidence of an ability to perform competently in the workplace. And finally, we wanted to make sure that all vocational education training providers, whether they are working within the Youth Training Scheme or our adult programmes or in programmes unrelated to government initiatives, have a clear national set of guidelines of the qualifications required. (See Figure 4.)

So what do we mean by a vocational qualification? In 1986 we decided that we wanted a vocational qualification to indicate the ability to perform competently in the workplace, to be issued by a recognised national regional local body, to be recognised by industry and to permit entry to not only further employment but into education or training as well. (See Figure 5.)

We had a national review of vocational qualifications which concluded that a new national council should be established to lead the reform process. It was agreed that the national council - NCVQ - should cover England and Wales and Northern Ireland, but in keeping with the strange ways in which we do things in the UK it was decided not to give it coverage of Scotland.

Early on, the NCVQ defined 4 levels of vocational qualification - NCVQ - and recognised that higher levels would be required in due course. (See Figure 6.)

Let me tell you about the process by which new qualifications are now being developed. First a few words about my own responsibilities. I am a civil servant employed within the Training Agency of the Employment Department which leads policy and strategy on training matters. We take a close interest in vocational education but we have a separate Department of Education and Science. I have some 60 staff, half of whom are professional advisers, the other half administrative support, with key responsibilities for the development of standards and qualifications and for securing their use in British industry thereafter. Perhaps I can try to explain how all the different parts of the system work together in this development process.

The first step is the establishment of a lead body of employers, typically with some trade union and educational interests involved. We now have over 150 such lead bodies covering virtually every occupation and sector in the country. The task of the lead body is to draw up standards of performance required for effective work. The Training Agency provides financial and advisory support to the lead bodies in their work. I have a budget of £7m per annum, most of which goes towards developing VQs but a growing proportion of which is used to help implementation. It is essential that the standards are carefully developed. We need to ensure that they are defined and subsequently owned by employers across the whole sector or occupation. The standards need to be easily understandable across the industry. We need cross-industry recognition of the standards once developed. Once they exist they need to be available widely in the form of a total national library or bank. Standards in areas such as management, or training, or language skills are clearly needed in all, or many occupations. In some cases where no suitable organisation can take on the task of being a lead body, the Training Agency has developed new ad hoc arrangements. (See Figure 7.)

Once the standards are developed, the Training Agency co-ordinates a meeting between the lead body concerned and one of the national awarding bodies (mentioned earlier) to construct a new qualification. When developed, such qualifications are then submitted to the NCVQ for formal accreditation. It is the NCVQ that establishes the criteria for new qualifications and which offers a structure known as the NVQ framework within which all new qualifications are expected to fit. Once accredited as a NVQ, the new qualifications need to be widely marketed and promoted and used by the new TECs in their discussion with their training providers. Essentially the Training Agency has a contractual arrangement with each TEC, included in which will be the number of people that the TEC is expected to bring to NVQ achievement levels. In turn, the TECs will need to fulfil these contracts by placing similar contracts with their training providers.

The reformed qualification can only be as good as the standards upon which it is based. Our experience of the lead bodies is that in the early days it was helpful to support financially almost anyone interested in developing standards. We have encouraged momentum to be built up, but in recent times we are encouraging bodies to work with each other to make sure that we have better integration across sectors. It is important that trade unions as well as educational interests are involved, that standards are expressed in a common national format, that they are assessable, and are sufficiently broad. When I say broad I mean on the one hand in terms of their occupational scope, but also that they cover skills, knowledge and understanding as well as general competencies such as problem-solving, communication, numerical ability etc. all of which are found everywhere in employment. (See Figure 8.)

I have briefly explained how we are developing our new qualifications. The work is certainly going well with full support of ministers and is welcomed by the new Training and Enterprise Councils. But it does raise a number of issues, not all of which have yet been tackled. Two diagrams indicate some of the concerns we face and I hope that some of these at least will be of interest given your programme of work in Australia.

Ideally we would have started with an established NVC framework defining the occupations and levels required. Unfortunately that was not possible and it is only this last year that an NVC framework is now emerging. (See Figure 9.) It does have a critical influence on the breadth of qualifications accredited. Another issue is whether reform should take precedence over rationalisation: both are important. We need totally new qualifications as I have explained, but we also need much clearer relationships between qualifications. In the early days of NCVQ too much time was spent trying to give some provisional or conditional status to existing qualifications and to bring them into a temporary relationship with each other. We are now convinced that reform is essential. The NCVQ is therefore only accrediting substantially improved qualifications. Occasionally the government does have to provide some temporary recognition of existing qualifications and were that is necessary, we in the Training

Agency makes such judgements. Another issue has been the question of how much progress it is reasonable for NCVQ to make towards financial self-sufficiency. The Council can generate income through individuals pursuing accredited qualifications, but if indeed reform takes precedence as I have just explained, it means that we must be more relaxed about the length of time it will take before the National Council can depend entirely on non-government resources for its survival. Yet another issue is how to tackle higher levels of occupational activity. Many of our major professional bodies such as the Engineering Council and the Institute of Chemistry have members in all sorts of different sectors and it would be highly undesirable for every industry lead body to redefine, for example, the requirements for a professional engineer. We need therefore to establish consortia arrangements where cross-industry professional organisations can debate with industry lead organisations, the precise nature of reformed qualifications needed. We have already made progress in the engineering and construction industries in bringing such groups together.

The Scottish education system is, as I have said, different from that in England and Wales. The Scottish Vocational Education and Training Council acts as an examining body and we have now arranged for this body to accredit 'Scottish vocational qualifications' based on identical employer-led standards defined by the same lead bodies. These Scottish vocational qualifications will be precisely equivalent to those south of the border. I shall touch on European issues before I finish.

There are 3 important reasons for the Training and Enterprise Councils responsible for delivery of training to have full and up-to-date information about vocational qualifications approved. First, it is precisely because standards-based NCVQs specify outcomes required that the training routes can be made much more flexible, so the TECs will be able to arrange and purchase provision from all sorts of different training providers extending over different periods of time - as long as the ultimate destination is the NVQ. The second key function of the NVQ is to offer a quality assurance device as a measure of the effectiveness of training. Thirdly, we in the Training Agency are increasingly funding the TECs on the basis of their success in achieving outputs; that is, individuals achieving NVQs. At the moment only 10% of Youth Training Scheme funding is dependent upon satisfactory outputs but we are moving to significantly increase that percentage in future years.

Marketing and implementation are important matters. Once qualifications are accredited they need to be widely available to all individuals who wish to pursue them, and to have appropriate currency they also need to be known about by employers. We are working hard with the lead bodies and TECs to ensure that every opportunity is taken to promote not only the concept of national vocational qualifications in general, but also the specific emerging qualifications at the different levels as they are accredited. As I mentioned earlier on, observers of the reform programme are often concerned about the breadth of the qualification. It is especially important that, when we speak of full occupational competence as the basis of the qualification, we reassure everyone concerned that this embraces a wide-ranging ability to perform effectively in the workplace, managing the execution of whole work roles not just individual tasks required. (See Figure 10.) If we fail in this, employers will continue to place greater value on academic qualifications, seeing these as evidence of potential in the absence of relevant vocational information about individuals.

Finally, the acronym 'NROVA' (refer back to Figure 9), refers to the National Record of Vocational Achievement which is a permanent record held by every individual of the progress they have made towards national vocational qualifications. Being based upon standards, NVQs typically consist of units and elements so that credit can be accumulated over time. We in the UK are looking carefully at the possibility of constructing a national record which transcends academic and vocational studies and which may be held by all learners from perhaps the age of 14.

In Figure 11 I have shown a range of further issues which I will go through very quickly. Basically we have rushed ahead with the reform programme to get improved qualifications in place as quickly as possible because they are urgently needed. What we haven't yet addressed is how these new qualifications should be maintained and updated in the future, and in particular who should pay for the process, and how it should be organised once the government has completed the initial pump-priming. We are looking hard at the longer-term institutional arrangements which are itemised in Figure 11. Should we encourage the lead bodies that have been set up in many cases for the purposes of standards setting, to become permanent advisory bodies to their industries? Should we perhaps merge the lead and awarding bodies in order to reduce the number of organisations working with the public? How can we best bring in the professional bodies without usurping their long standing authority? What more do we need to do to make sure that all our own staff and those in NCVQ remain capable of giving expert advice? The work to date is 'first round' in the sense of being the best that lead bodies and the consultants working with them can produce in the timescale. How quickly should we move to second round work? We have one major national organisation - the Business Technician and Education Council which administers general vocational qualifications not yet based upon occupational competence and yet with an impressive record in getting students into higher education. Should we let them stay outside the reform programme? The National Council for Vocational Qualifications has been extensively reviewed recently and we are about to give it a new remit and revised funding. We certainly need a national strategy for implementation and a more effective means of bringing all employers into the reform movement yet securing widespread sharing of standards rather than narrow self-interest in the work produced. Finally, there are permanent dangers of starting too much work too soon and encouraging a whole range of new bureaucracies amongst the lead bodies.

Before I leave the reform programme, just a brief word about the targets to which we are working. (See Figure 12.) We have, this year, already established a new framework for National Vocational Qualifications which will shortly be published. We met a target to produce by April 90, standards for the vast majority of occupations with qualifications based upon them up to Level III. We intend to have standards in place up to Level IV by the end of 1991. We note that the single European market will be completed by 1991 and the end of that year will see qualifications up to Level IV in place. By April next year we intend to have the one millionth NROVA issued. This figure shows that the NCVQ's remit was to have been reviewed in terms of its geographical coverage in 1991 - that now has been passed on to 1992.

Before I move on to say a few words about the European work, I would just like first to mention the way in which we are thinking about bringing together academic and vocational learning routes. I mentioned that in England and Wales government departments for education and employment and training matters are separate, and indeed they are also separated in Northern Ireland and in Scotland. Nevertheless educationalists and trainers are united in the view that there should be more of an assurance that any individual, whether in full-time education or in a learning situation at work, should go through certain basic experiences in terms of their personal foundation. All preparation routes should therefore demonstrate relevance to work and jobs, emphasise competency and have that competence recorded, by clearly known and to have currency, to offer choice and an effective blend of methods to the individual, to make full use of the richness of all learning experiences not least that in the workplace, which we call 'work-based learning', be based on the specific needs of the learners themselves, and to start with a clear recognition of all previous learning. (See Figure 13.) Figure 14 shows a model of transition for a young person through to work. All young people in the years 14 to 18 will either be in education off-the-job, or on-the-job training (although it is still almost uniquely possible in the UK amongst other European countries for a 16 year old to be in a work situation without training). But we might aim for there to be certain guarantees for the learning experiences of all young people, including such things as participative learning, guidance and review and continuous assessment. There is a good deal of enthusiasm for the individual action plan whereby the precise requirements of each individual are assessed, specified and recorded. We need, we believe, 8 outcomes for every individual whether they are in full-time education or training and which include academic knowledge, self-awareness, motivation to learn, a wide understanding of work, competence in a range of transferable skills, an ability to transfer to unfamiliar situations, personal effectiveness, and of course, full occupational knowledge and skill. Such outcomes may of course be accredited by an educational qualification, or by a more generalised prevocational qualification, or since the reform programme, by a national vocational qualification. Whilst ultimately, the vast majority of young people in transition will end up in a job, interim destinations include further education and further training. The purpose of this model is to demonstrate that academic and educational qualifications play a major part on the way to occupational competence. Also, that in considering the needs of vocational qualifications, it is essential that certain underpinning requirements are already secured.

Before I finish I would like to say a word about Europe. Just to remind you there are the 12 countries now making up the European Economic Community. (See Figure 15.) Increasingly the EC is taking an interest in vocational education and training matters. Why is this? If we are to construct the single European market then it is important that individuals should be able to move freely in terms of employment. Qualifications can assist such mobility by offering a measure of competency irrespective of which country it was achieved in: they can also provide evidence to customers of the expertise of the business supplying the product or service. (See Figure 14.) But there are certain obstacles to mobility. First there is the simple lack of awareness of education and training opportunities available across the community. Secondly, there are remaining cultural barriers. Thirdly, the qualifications themselves may cause problems, first if in technical terms they simply do not relate to each other, and secondly, if they do relate to each other, there are restrictive practices exerted by one country in terms of the qualifications offered by another country. (See Figure 15.)

There are basically 5 different approaches currently being adopted in Europe to overcome these issues. The first is comparability - the technical comparison of existing qualifications in member states. Secondly, mutual recognition whereby each country is required to take serious account of qualifications brought to it by other countries. Thirdly, further technological trends are monitored and skill profiles developed to inform both comparability and mutual recognition exercises. Fourthly, there are recent efforts to construct totally new qualifications - much on the lines of those I mentioned as coming out of the United Kingdom work which are genuine European qualification or Euroqualifications. Finally, there is a whole raft of bilateral agreements whereby a qualification is deliberately developed between two countries, with trainees spending time in both countries before they qualify. (See Figure 16.)

The comparability work involved experts from each country coming together in Berlin under the auspices of the European Centre for the Development of Vocational Training. (See Figure 17). This centre was established in 1975 and assists the Commission in encouraging the promotion and development of vocational training. The expert groups examine common job descriptions and identify vocational qualifications which fit most closely the common job descriptions already existing in member countries. I act as the UK co-ordinator for this work and one of my tasks is to make sure that the final results are widely publicised to all individuals and employers through our Jobcentres. (See Figure 18.) The objective is to produce a list of qualifications so that any individual seeking work in another member state can immediately see that their qualification is precisely comparable with the qualifications held by nationals for the country concerned. Equally, employers can review the applications of potential workers from overseas to check that they have the required qualifications.

In conclusion, I have shown that in the United Kingdom we have faced difficult issues of education and training over the past 20 to 30 years in terms of securing an adequate quantity and quality of training that will take us through times of both high unemployment and full employment. We have tried the Industrial Training Boards with their levy grant approach; we have injected significant additional funds into keeping up the skill supply and used individual training scheme approaches such as the TOPS scheme for adults as well as YTS for young people. But we have by no means yet established the kind of culture that West Germany can be proud of, in which employers make a regular and positive commitment to the funding of training. We are now trying the Training and Enterprise Councils which we see as a deliberate attempt to pass responsibility away from the government out into local districts, and to place the responsibility firmly on employers for the organising of training and meeting its costs, and aligning training very closely to the needs of the locality and the businesses therein. The TECs can only do their job properly if they have a full range of national vocational qualifications available to them which cover every occupation and every level, and indeed the TECs' future survival will depend on their ability to meet performance-based funding targets determined by the government and which will be based upon national vocational qualifications. I have described the institutional arrangements for producing NVQs in the United Kingdom and suggested that whilst they offer a range of opportunities they also incur many costs, and there are a number of issues yet to be addressed before we have a permanent system in place.

I wish you well with the rest of your conference and I am very grateful to you for listening to me.

WORKFORCE WITH A RECOGNISED VOCATIONAL QUALIFICATION

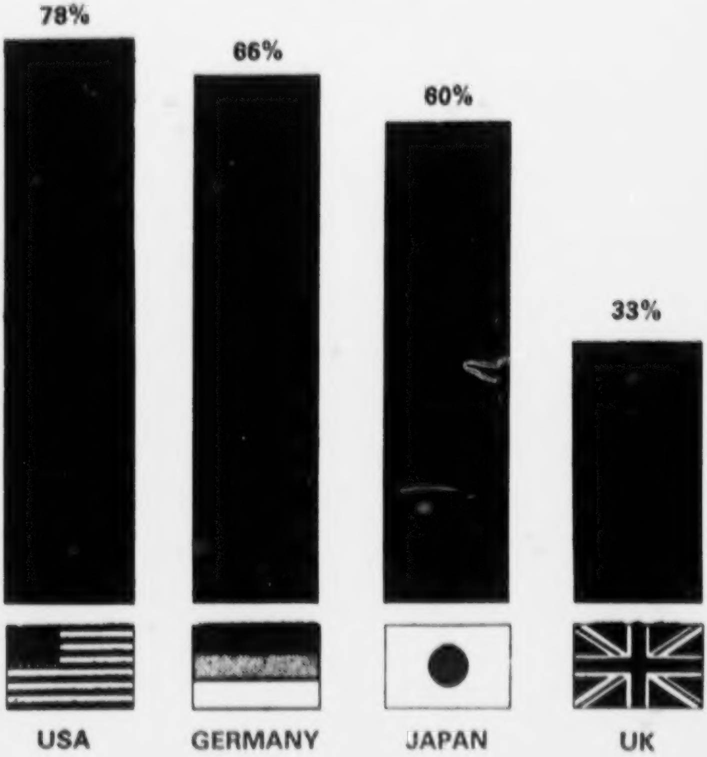


FIGURE 1

- **THE NATION NEEDS A COMPETENT, BETTER QUALIFIED WORKFORCE**
- **IMPROVING THE SYSTEM OF QUALIFICATIONS IS NECESSARY FOR QUALITY AND AS AN ENGINE OF CHANGE**
- **THE "ACADEMIC" - "VOCATIONAL" DIVIDE MUST BE BRIDGED**
- **QUALIFICATIONS ARE A BARRIER TO LEARNING**

FIGURE 2

THE CURRENT SYSTEM

THE EDUCATIONAL VALIDATING AND EXAMINING BODIES (BTEC; CGLI: RSA: Regional Examining Bodies; Pitman's; London Chamber of Commerce and Industry - about 12 major bodies)

Involves over 1.5m entries or registrations each year.
Total income of these bodies about £20 - £25m pa.
Total cost, about £50m pa.

I: THE PROFESSIONAL EXAMINING BODIES
(about 250 bodies, including about 70 Chartered Bodies)

II: STANDARD SETTING AND CERTIFYING BODIES IN AND FOR INDUSTRY (ITBs; Statutory Testing eg HGV drivers - about 120 ITOs)

FIGURE 3

NEED FOR REFORM

- SKILL SUPPLY
- VQ JUNGLE
- LEARNING AT WORK
- EMPLOYER OWNERSHIP
- NATIONAL MOBILITY
- INDIVIDUAL ACCESS
- COMPETENT PERFORMANCE
- OBJECTIVES FOR VET PROVIDERS

FIGURE 4

QUALIFICATIONS

A relevant vocational qualification is one which:

- Is indicative of an ability to perform competently in the workplace;
- Is issued by a recognised national, regional or local body;
- Is recognised by industry and employers as being relevant to employment;
- Facilitates entry to, and progression in, employment, further education or training.

FIGURE 5

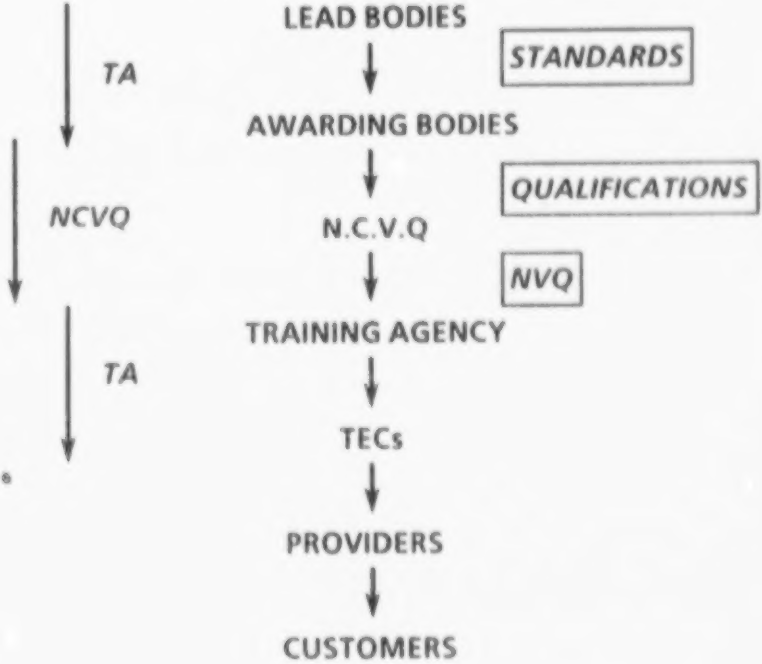
NATIONAL VOCATIONAL QUALIFICATION

LEVEL	DESCRIPTION OF STANDARD
I	OCCUPATIONAL COMPETENCE IN PERFORMING A RANGE OF TASKS UNDER SUPERVISION.
II	OCCUPATIONAL COMPETENCE IN PERFORMING A WIDER, MORE DEMANDING RANGE OF TASKS WITH LIMITED SUPERVISION.
III	OCCUPATIONAL COMPETENCE REQUIRED FOR SATISFACTORY RESPONSIBLE PERFORMANCE IN A DEFINED OCCUPATION OR RANGE OF JOBS.
IV	COMPETENCE TO DESIGN AND SPECIFY DEFINED TASKS, PRODUCTS OR PROCESSES AND TO ACCEPT RESPONSIBILITY FOR THE WORK OF OTHERS.

LEVEL V SHOULD REFLECT COMPETENCE AT PROFESSIONAL LEVEL WITH MASTERY OF A RANGE OF RELEVANT KNOWLEDGE AND THE ABILITY TO APPLY IT AT A HIGHER LEVEL THAN IV.

FIGURE 6

THE VQ DEVELOPMENT PROCESS



TA

NCVQ

TA

LEAD BODIES

AWARDING BODIES

N.C.V.Q

TRAINING AGENCY

TECs

PROVIDERS

CUSTOMERS

STANDARDS

QUALIFICATIONS

NVQ

FIGURE 7

INDUSTRY DEFINED STANDARDS

- LEAD INDUSTRY BODY
- COORDINATION NOT MONOPOLY
- INVOLVEMENT OF TRADE UNION & EDUCATION
- EXPRESSED IN A COMMON FORMAT
- ASSESSABLE STANDARDS
- COVER 4 OUTCOMES

FIGURE 8

VOCATIONAL QUALIFICATIONS ISSUES

- THE NVQ FRAMEWORK
- CONDITIONAL ACCREDITATION
- NCVQ PROGRESS
- LEAD AND PROFESSIONAL BODIES
- ITOs, ILBs
- YOUTH TRAINING
- SCOTLAND
- EUROPE
- TEC FREEDOMS
- MARKETING AND IMPLEMENTATION
- BREADTH
- NROVA

FIGURE 9

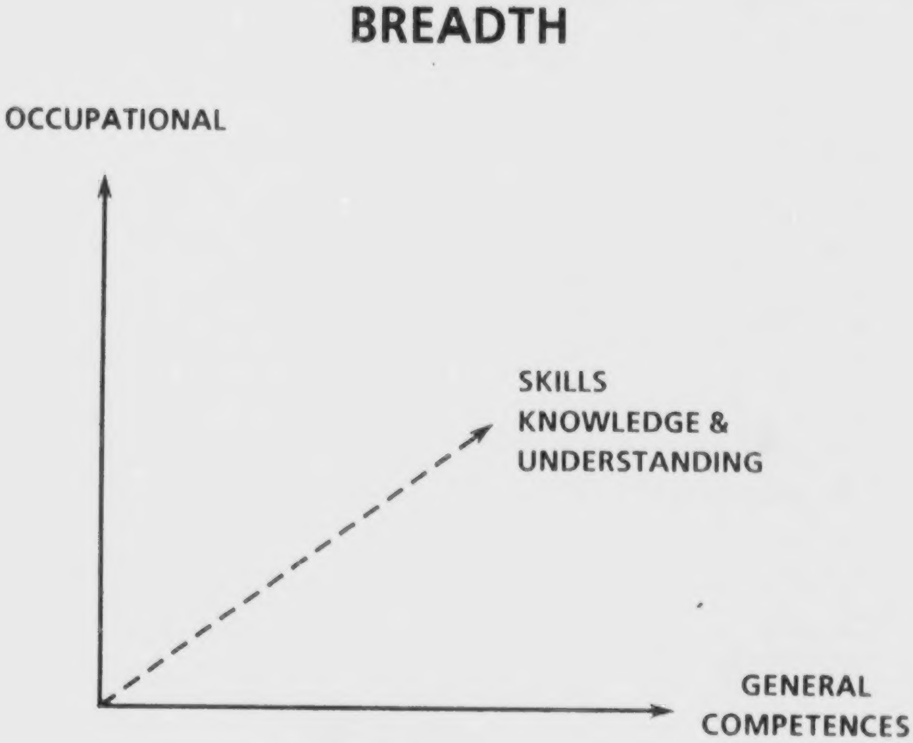

BREADTH
OCCUPATIONAL
SKILLS
KNOWLEDGE &
UNDERSTANDING
GENERAL
COMPETENCES

FIGURE 10

KEY ISSUES

- LEAD BODIES AS FUTURE ITOs
- LEAD BODIES AS AWARDING BODIES
- FORMS OF COLLABORATION WITH PROFESSIONAL BODIES
- STAFF DEVELOPMENT QSB AND BEYOND
- 2ND ROUND STANDARDS/VQ
- BTEC - GENERAL VQ
- RE-FOCUSSING NCVQ
- IMPLEMENTATION STRATEGY
- EMPLOYER REPRESENTATION
- SHARING STANDARDS
- RECOGNISING OTHERS' STAND POINTS
- OVERCOMMITMENT
- LB BUREAUCRACY

FIGURE 11

TARGETS

- NVQ FRAMEWORK BY 1991
- MAIN (1 - 111) BY APRIL 1990
- STANDARDS BY 1991
- SEM 1992
- Im. NROVA APRIL 1991
- SCOTLAND REVIEW 1991

FIGURE 12

LEARNING MODEL

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1. demonstrate relevance to work and jobs
2. emphasise (recorded) competence
3. be clear, known and with currency
4. other choice and effective blend of method
5. exploit work place for w-b-learning
6. be learner-based
7. recognise previous learning

FIGURE 13

INPUTS	EDUCATION	OF JOB TRAINING	ON JOB TRAINING
PROCESSES	PARTICIPATIVE LEARNING	GUIDANCE & REVIEW	CONTINUOUS ASSESSMENT

OUTCOMES

1. ACADEMIC KNOWLEDGE
2. SELF AWARENESS/PERSONAL GROWTH
3. ABILITY/MOTIVATION TO CONTINUE TO LEARN
4. UNDERSTANDING OF WIDER CONTEXT OF WORK
5. COMPETENCE IN RANGE OF TRANSFERABLE SKILLS
6. ABILITY TO TRANSFER TO UNFAMILIAR SITUATIONS
7. PERSONAL EFFECTIVENESS
8. OCCUPATIONSL KNOWLEDGE AND SKILLS

designed to maximise potential and ability to progress

ACCREDITED BY	ACEDEMIC Q EDUCATIONAL	PRE-VOC Q R of A	VOC Q NROVA
DESTINATIONS	JOB	FURTHER EDUCATION	FURTHER EDUCATION

FIGURE 14

OBSTACLES

1. AWARENESS
2. LANGUAGE
3. QUALIFICATIONS
   - TECHNICAL COMPARISON
   - UNRESTRICTED RECOGNITION

FIGURE 15

W. GERMANY

FRANCE

UNITED KINGDOM

ITALY

BELGIUM

LUXEMBOURG

NETHERLANDS

DENMARK

GREECE

SPAIN

PORTUGAL

IRELAND

EUROPEAN DEVELOPMENTS

- COMPARABILITY
- MUTUAL RECOGNITION
- OBSERVATORY
- PURPOSE BUILT EURO-VQ
- 2-COUNTRY AGREEMENTS

FIGURE 16

WHY QUALIFICATIONS AID MOBILITY

1. TREATY OF ROME - RIGHT TO BE EMPLOYED, RIGHT TO SET UP IN EMPLOYMENT - WITHOUT NATIONAL RESTRICTIONS.
2. CREDIT ACCUMULATION IRRESPECTIVE OF ENTRY.
3. EVIDENCE OF COMPETENCE IN PAN-EUROPEAN TERMS.
4. CUSTOMER QUALITY ASSURANCE

CEDEFOP

EUROPEAN CENTRE FOR THE DEVELOPMENT OF VOCATIONAL TRAINING

JEAN MOTTNET BUILDING

ESTABLISHED 10TH FEBRUARY 1975

TO ASSIST THE COMMISSION IN ENCOURAGING, AT COMMUNITY LEVEL THE PROMOTION & DEVELOPMENT OF VOCATIONAL TRAINING AND OF IN-SERVICE TRAINING ....

SCIENTIFIC & TECHNICAL ACTIVITIES ....

IMPLEMENTATION OF COMMON VOCATIONAL TRAINING POLICY

ENCOURAGE EXCHANGE OF INFORMATION & EXPERIENCE

FIGURE 17

COMPARABILITY

- COMMON JOB DESCRIPTION
- EXPERT GROUPS
- IDENTIFIED VQ
- UK COORDINATION
- PUBLICATION

FIGURE 18

SUMMARY OF GROUP DISCUSSIONS FOLLOWING JOHN FULLER'S PAPER: UNITED KINGDOM REFORMS IN QUALIFICATIONS AND STANDARDS IN VOCATIONAL TRAINING

General

Unlike the previous workshop discussions, no questions were provided to the participants as a basis for discussion of this paper. Consequently the range of topics discussed in these workshops was extremely diverse with only a couple of common themes which include an analysis of the UK training environment as described by John Fuller and how Australia may be able to benefit from the UK experience.

Lessons to be Learned from the UK Experience

- it was generally agreed that the standards-based approach (which should be related to industrial classifications) was the most desirable model to be followed.
- determining and interpreting training standards, particularly at the local level is facilitated by TAFE and industry (including associations) collaborating in the planning and delivery of training. This collaboration also ensures flexibility.
- standards should be detailed enough to ensure consistency and forward-looking enough to accommodate change. Furthermore, they should be monitored on an on-going basis. Standards should be flexible enough to allow for national, regional and enterprise needs.
- the work of the NTB in setting national competency standards should include all occupational levels of an industry including professional levels: such arrangements would facilitate the development of career paths and training articulation.
- in the light of the UK experience the NTB should establish guidelines on the composition of 'lead groups' including advice on who have the qualifications to participate; for example, educationalists and trade unionists.
- the NTB should confine its activities to national definition and documentation of standards. Curriculum development and methodology should be left to the States. The development of standards should be allotted to the national ITCs under the direction and funding of NTB and DEET.
- Australia should note the UK experience with the training levy which has now been abandoned. Revenue is now raised and used with much more involvement with employers via the TECs.
- the establishment of competency statements with recognition of prior

learning and diversity in modes of learning and program delivery.

- Australia should note that the UK appears to place less reliance on awards but nevertheless the concept of levels and awards being flexibly linked is promoted.
- has the Australian award restructuring process ignored the cultural aspects of Australian industry? John Fuller pointed to the British system accommodating the 'differentness' of Scotland. Perhaps one of the major cultural changes needed in Australian industry is the acceptance and value of training by employers. The Australian States and Territories occupy a similar position in relation to the notion of a uniform Australia as do the EC and Scotland to England in terms of transferability of qualifications. Australia should beware of dividing the 'industrial' society in its determination to set national standards.
- cross-industry standards were stressed as a common problem in the UK as it is in Australia.
- the UK is confronted with deadlines to implement national systems, for example in the early stages of the VQ development process; and may be at the expense of the process. Australia should be wary not to set unrealistic deadlines at the expense of the national vocational training system.
- there exists a significant comparison between the accreditation process in the UK and Australia. In the UK, qualifications are accredited not courses - we do the reverse. The following are implications of this:
    - the concept of course may disappear (e.g. moving away from fixed study courses);
    - achieve learning by experiential training on-the-job. TAFE may find itself without a job;
    - TAFE colleges may find themself in competition with private providers;
    - private providers won't want to provide short sandwich-type courses;
    - it may be less costly for individuals to gain qualifications through cheap short courses rather than academic qualifications.

Other Issues Discussed in the Light of John Fuller's Paper

Many of the following issues were discussed in the workshops but they made no overt reference to John Fuller's paper on the UK experience. These issues however, must be extremely topical since some of them had already been argued after Graham Slee's paper. They are intrinsic to the 'great training debate' and include discussion of competency-based training, linkages between

TAFE, higher education and secondary schooling and the considerable differences in curriculum development processes between the States and Territories. Some of the issues not covered in the workshop following Graham Slee's paper include the following:

- employers are not participating effectively in vocational training. All employers should have the right as well as the responsibility for providing input into the design of training. In addition they should be obliged to exercise that right in order to produce a training system that is more responsive to industry requirements.

- with reference to the linkages between TAFE, higher education and secondary schooling, consideration should be given to the issue of broad general education versus vocational education at the secondary level. In addition, the relationship between TAFE-provided vocational education and the university sector was discussed, bringing into focus the issues of articulation and accreditation.

- the issue of inclusion of general competencies in standards and how this could be achieved was considered to be a significant point. Attitudes are more important than skills in some instances and these sorts of skills are often required by employers and neglected in favour of generic competencies.

- it is important not to neglect the skills required by trainers in industry. Often trainers lack a high level of skills; for example, traineeships in Australia. Perhaps the focus should move from the quantity of training to the quality of training.

- increasing role for TAFE in providing fee-for-service training to replace government funding and to maintain social justice programs.

- likely result of preceding issues is competition between colleges leading to focus colleges or colleges of excellence. These are seen as useful to aid the economic survival of particular industries.

- focus colleges can lend support to the overall development, maintenance and monitoring of standards. This is facilitated through the program management groups (or their equivalent and which are composed of key lecturing as well as ITC staff).

- there exists very little liaison between the States in determining and monitoring standards. Presently there exist no mechanisms for assessing competence, so are the graduates in fact competent? Many of the competency tests are not standards-based.

- in a competency-based training system, it is outcomes that are significant not qualifications. Therefore industry will need to see actual competences demonstrated, that is, skills not qualifications.

- a portfolio/passport approach that reflects what TAFE has provided to the trainee is desirable and should demonstrate the core competencies as well as the breadth of skills held.

Recommendations

- to DEET, the TAFE National Centre and the National Training Board that some formal means of ongoing communication be established with keynote speakers.
- to the Australian Committee of TAFE Directors (via the ACTC) that they undertake co-operative national curriculum development after the NTB has set or reviewed national competency standards.
- to the NTB that they establish an agreed national time scale for the establishment of standards for all industries and occupations.

ISSUES AFFECTING ASSESSMENT AND ACCREDITATION

Peter Kirby
Chief Executive Officer
SA Department of Employment & TAFE

The Commonwealth Government, with the support of the Industrial Relations Commission, trades union organisations and employers groups, has initiated a range of reforms aimed to improve work practices, work organisation, skill formation and, as a result, the economic performance of Australian industry.

It is a large, and will be a lengthy task, in which the performance of those who provide post-secondary, (and to some extent secondary) education and training will be critically examined.

It is doubtful whether those responsible for post-secondary education and training in Australia yet fully comprehend the magnitude of this challenge to their policies and practices - or indeed to their sovereignty.

For far too long, education (and particularly higher education) has, by omission or design, supported a form of apartheid in learning. The interfaces between education sectors have been characterised by competition and separateness. Each sector has seen itself as having its own mission with secure boundaries, with the needs of the student sometimes very secondary.

Now the pressure, notably through desired changes in assessment and accreditation procedures, is set to break down this rigid separation and to erode the boundaries between education sectors and between public and private providers.

Even in the technical and further education (TAFE) sector, which has prided itself on its close working relationships with industry and its long experience of blending theoretical with practical vocational education and training on- and off-the-job, the pressures for reform are mounting.

The diversity that has always been TAFE's strength is now being seen by national planners as confusion, and frustrating the development of TAFE into one uniform national system. The contradictory public policies set for TAFE, which have long been a source of tension with the system, are increasingly becoming a source of tension among those who fund TAFE.

In fact, only a relative few TAFE programs formally relate to industrial awards; for example, apprenticeship training. Some TAFE qualifications are required for certain jobs; for example, engineering technicians require an associate diploma. In addition, the completion of some TAFE courses is required for licensed occupations. However, for the majority of TAFE programs and educational awards, there are no formal relationships, direct or indirect with existing industrial awards. This is a situation likely to undergo considerable change over the next few years.

Under award restructuring, the formal industrial relations process will define formal skill standards and training requirements (determined by the industrial parties) in almost all awards and associated agreements. Existing TAFE modules, courses and educational awards will have to be reviewed and in many cases substantially changed to comply with the revised awards and proposed training arrangements.

As a result of these pressures, assessment and accreditation are taking on new, or at least enlarged meaning in TAFE.

Issues of Assessment

Assessment in education and training has traditionally been seen as confirmation by a recognised body that the participant has achieved the level of skill and knowledge defined in the curriculum or specification of the course.

As the Employment and Skills Formation Council points out in its publication, **The Recognition of Vocational Training and Learning** (February 1990), assessment is often confused with testing which is in fact only one of many ways of assessing.

With the advent of industry award restructuring there has been a greater emphasis on competency-based training which in turn has raised the profile of assessment. Satisfactorily assessed competencies (skills) can mean more pay as individuals move up the industry classification levels. As a result education/training providers confront the potential of an explosion of demand for the assessment of skills.

Currently there are a number of initiatives which more accurately define what is to be assessed, to what standard(s) and under what conditions the assessment should take place. This has become a major task and has lead to a growth in skills audits and skills analyses.

The material emerging from these skills audits is in turn providing a challenge for curriculum writers in the design and wording of competency statements and techniques used to measure an individual's performance. An even greater challenge for institutions is the demand for assessment of the skills gained by an individual:

- informally on the job through experience
- from prior study/training at another educational institution, private provider or in industry.

This assessment determines what credit the person can be given for the skills and knowledge they already possess, and enables them to shorten their subsequent training or education.

Credit Transfer

Apart from the technical difficulties, the move to greater credit transfer confronts the political problem of challenge to the autonomy of educational institutions, although this challenge is sometimes suggested as a threat to the maintenance of standards by those protecting their autonomy.

There should be no surprise about this cultural resistance because it rests as much on the inability of academics to specify the standards of their courses as on their unwillingness to do so.

In a paper to a seminar on credit transfer in March this year[1], Dr Anthony Hayden, the Director of the South Australian Credit Transfer Project had this to say of his experiences in the project:

> Tertiary education has been called on to document its courses (or some of them) in terms of content and process, and even in terms of aims and objectives where accreditation required this, but there is no denying that there is not much interest or expertise around in specifying standards, where these move away from the literally measurable. Uneasiness about precision in this area seems almost as prevalent in the so-called hard disciplines as anywhere else. The result is that 'standards' exist only in the mind of the examiner, and can take on a rather mystical quality. Like the discipline itself, the knowledge of 'standards' can be represented as too arcane for easy description.
>
> It is not hard to see where the origins of this lie. A senior academic in a very 'hard' discipline recently told me that he would not accept any intervention, even by his departmental colleagues, in establishing what was acceptable in a doctoral or master's thesis - this was a matter between him and the global community of scholars in his particular field of specialisation. There is no need to debate the correctness or otherwise of this view now; it is sufficient here to note its influence on attitudes to undergraduate assessment. There, too, the standards are seen as incapable of being specified, other than quantitively (50% = a pass) or diagrammatically (a top hat curve of student results). What it takes to be competent, even in supposedly sequential courses with a rigid, lock-step series of subjects, would be regarded widely as too hard to put down in writing.
>
> So advocates of credit transfer are operating in a climate where the bid card -'You wouldn't understand my reasons for refusing credit' - can be, and is being played.

In just the past few weeks one of our South Australian TAFE colleges heard that a university was about to introduce a bachelor degree in health science (environmental health). The college has run a successful Associate Diploma in Health Surveying for environmental health practitioners for a number of years.

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[1] Anthony P. Haydon, 'Credit transfer: a tertiary education perspective'. A paper presented to a seminar held by the National Board of Employment, Education and Training, Canberra, 1990.

When approached about credit transfer the university stated that it believed there was nothing to discuss!

The higher education sector may have been put on notice by the Commonwealth Government and industry that their old closed shop approach is no longer acceptable, but there is a long way to go before we achieve full and proper articulation between education sectors. There will need to be a great deal of good will, some significant changes in attitude, a lessening in institutional rivalries and a sustained work effort to achieve soundly based credit transfer arrangements which:

- are binding on those applying the policies and procedures (i.e. rules not guidelines);
- detail the precise credit to be given, preferably on a subject-to-subject basis;
- are available to all in the form of readily accessible and readily comprehensible information;
- cover all the related courses in the institution.

Issues of Accreditation

Turning to issues of accreditation, there is often confusion about the use of the term.

In academic terms it refers to the standards of a course. Accreditation provides the assurance that those standards are appropriate to the award and that the methods adopted in delivering the course are likely to achieve the purpose for which is was designed.

However, in the growing debate on industry award restructuring a somewhat different meaning - one more closely related to control and direction - is being assigned to accreditation. An illustration of this comes from a Department of Employment, Education and Training discussion paper considered by an Australian Education Council working paper in July, 1989. This referred more to a process for reviewing industrial and vocational accreditation:

> Assessment and review of course standards and structures by bodies such as professional/industry associations, employers and trade unions, State/Territory industry training authorities and licensing boards. In practical terms, this process confers the 'ticket' to practise a professional or skilled occupation.

The major issue of accreditation is very much concerned with who will have the power to accredit - who will 'call the tune' whether or not they paid the piper.

Although a good deal has been and is being done to provide national consistency among accrediting authorities, the power still lies with the States and the higher education institutions.

As the Commonwealth and States grapple with the issue of who should accredit and how it should be done, outside the public system a range of new providers, including industry as a provider, is developing.

If national accreditation by an authority independent of the providers is seen as the best arrangement in the long-term, the question arises as to how the current diverse arrangements can be brought together.

In the short-term it may be useful to move towards the kind of arrangement being developed in Victoria where they are attempting to bring the power to accredit vocational education and training courses, including both on- and off-the-job components, under the aegis of one State authority - the State Training Board of Victoria.

If there were such a single accrediting authority in each State and Territory, the prospects for achieving the career path arrangements embodied in the Structural Efficiency Principle of industry award restructuring would be greatly enhanced. However, there would still be a number of other issues to be confronted, including:

- articulation with recognised courses in higher education and between States and Territories;
- ownership of the accredited course between various providers;
- responsibility for maintaining the standards among the various providers;
- power to award the qualification.

None of these problems are insurmountable but there is a danger that their resolution may give rise to a new bureaucratic order of some size and power. This could be a clumsy as well as an ineffective approach.

Ownership of a course is an essential part of maintaining quality and relevance. It is also a highly competitive area of education and training, particularly with the increasing requirement on public as well as private providers to gain revenue from their activities. And, or course, higher education with its long traditions of academic freedom will present an extremely difficult problem in terms of any national accrediting authority.

In the United States a recent study relevant to Australian institutions by Harshbarger[2] highlighted the importance of autonomy to education institutions. He concluded that:

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[2] B. Harshbarger, (1989). 'Faculty commitment to the university influences and issues'. Review of Higher Education, 13(1), 29-45.

> Respondents' perception of autonomy appeared to be the key factor differentiating more or less committed faculty. Faculty members who felt free to pursue their own academic priorities reported higher levels of commitment. When they felt that this freedom was constrained by institutionally imposed limitations, they were likely to feel alienated. This perception of freedom involves both 'practical' freedom (an unregimented work style, few tasks competing with personal priorities, and ample tools) and 'psychological' freedom (the academic encouragement to follow a scholarly agenda without institutional constraints or political pressure).
>
> (Harshbarger 1989, p.42)

One approach suggested for ensuring national consistency while maintaining the benefits of autonomy for existing accrediting authorities is a two stage or level of accreditation. At the national level a 'curriculum framework' would be set, allowing institutions considerable flexibility to accredit individual courses. An example of this type of approach is the Advanced Certificate in Hospitality with its common core studies, major options and elective components. This allows individual design of courses with multiple entry and exit points and the 'nesting' of awards for further study at diploma and higher levels.

Industry Restructuring Imperatives

The whole industry award restructuring exercise currently so high on the national agenda put simply encompasses the following:

- economic performance depends upon higher productivity;
- productivity depends on skills;
- skills will be tested by credentials;
- credentials will be given on reaching a specified level of competence;
- competence is developed through training.

Traditionally a large proportion of Australia's workforce has been regarded as unskilled, in low paid jobs severely limited by the organisation of work. In this situation a significant counter to increases in the training effort has been occupational wastage. A major factor in the high level of wastage has been the absence of career paths for many occupations and, where they do exist, the exclusion from them of skilled but formally unqualified workers (including those with unrecognised overseas qualifications).

These are the problems award restructuring is intended to deal with and they illustrate how the debate will be misplaced if it starts from the viewpoint of accreditation, articulation or any of the many other education sector processes. The focus should be on 'client needs'. From that viewpoint it can be seen that it is difficult to treat separately the issues of competency, assessment, recognition for prior learning, curriculum structures, accreditation, credit transfer and articulation.

From this perspective also, both new and modified approaches are seen to be necessary for curricula, teaching methodologies, course delivery and articulation, if many more people than in the past are to feel able to participate (and to participate effectively) in recognised education and training, and have the motivation to do so. This does not imply that standards have to be lowered, but rather that education and training providers have to change and give up some of their independence.

Many traditional practices in TAFE are already showing signs of strain in the context of these contemporary pressures. For example:

- inflexible standard certificates and diplomas have become less appropriate in terms of specific enterprise and individual needs;
- the limitations of classroom-based teaching are becoming more apparent as far as access, equity and capacity are concerned;
- increasingly, as the workplace is recognised as a major provider of accredited skills by both formal and informal means, TAFE is having to give credit for training provided by a range of other providers;
- modular course construction, competency-based assessment and greater recognition of prior learning are requiring greater collaboration between providers and placing pressure on TAFE to 'share' its curriculum;
- the demand for national commonality in the core components of TAFE courses is pressing TAFE towards becoming a national system (although considerable differences between the State and Territory systems remain);
- emphasis on more student-centred and managed approaches to learning are changing TAFE's delivery and increasing the pressure on TAFE staff training and development.

Of course, as those familiar with TAFE will know, none of these reforms is new; they have been developing in TAFE systems for years. However they have now moved from the desirable to the essential, and TAFE is no longer controlling the agenda, or, to a large extent, the pace of reform. It remains to be seen whether in the long term this will be an advantage or disadvantage to the achievement of a new national system of assessment and standards in vocational education and training. Greater centralisation may bring the benefits of standardisation and uniformity, but it may put at risk qualities such as innovation, responsiveness and adaptability. The more distant the message the more vulnerable are the lines of communication.

SUMMARY OF DISCUSSIONS FOLLOWING PETER KIRBY'S PAPER: ISSUES AFFECTING ASSESSMENT AND ACCREDITATION

Although Peter Kirby's paper focuses on issues of both assessment and accreditation it was the latter topic which provoked with most vigorous discussion. The concerns relating to accreditation identified by the various groups may be summarised under the following points:

- a national accreditation system or a single accreditation body which operates within the context of national standards is urgently required.
- since the accreditation process of the various States may take between two months and three years it is essential that a new national accrediting body should accredit quickly and respond to the demands of industry.
- is there a rationale for the National Training Board to become the national accrediting body?
- courses for national accreditation should include a selection of nationally recognised modules plus modules incorporating local content.

Closely associated with the concept of national accreditation are issues of articulation and cross-crediting. The following points encapsulate discussion of these issues:

- there should be Australia-wide articulation of courses.
- cross-crediting and articulation processes between TAFE and the higher education sector are a top priority particularly in those higher education awards which provide qualifications for a recognised vocational pathway or an industrial award, e.g. engineering. This issue however raised the question of comparability of assessment and standards between TAFE and the higher education sector.
- related to the above is the impact that CBT undertaken in TAFE will have on articulation from TAFE to the higher education sector. CBT must have theoretical knowledge incorporated within the curriculum otherwise the knowledge base of the two sectors may be incompatible.
- effective articulation will be a requirement of industry and will occur due to economic necessity irrespective of State and sector differences.

Issues of a national accreditation and the related topics of articulation and cross-crediting of courses provoked discussion of national core curricula and their importance. The significant issues were:

- the establishment of national competency standards (by the NTB), in particular essential competencies required the establishment of a national curriculum framework which includes core objectives and content. The development of such a framework should be undertaken by the ACTC or the NTB.

- nationally applicable curriculum which have been accredited in one State should be accredited by other States to minimise duplication of effort.

On the topic of on-the-job training and assessment the following issues were discussed:

- TAFE doesn't have sufficient resources to support industry needs for training and assessment. With the advent of the Training Guarantee, industry will necessarily become more responsible for training. There are however, concerns relating to the quality of training and the training expertise available in industry particularly within small business enterprises. Strategies to overcome these deficiencies could include:

    . setting trainer/training standards;

    . recognise, value and reward training expertise as a key skill/competence/job classification in restructured awards and career paths;

    . training levy guidelines include requirements for industry to develop a training infrastructure.

- concern was expressed that the current preoccupation with on-the-job training and the implementation of the Training Guarantee would result in a debasement of the 'educational' content of TAFE courses as well as those in the higher education sector: continuing and personal development education may be largely ignored.

- although TAFE is perceived as being largely industry-driven, TAFE teachers may feel loss of ownership and therefore commitment unless training is a dual partnership. If industry alone sets standards and develops courses there could certainly be a loss of quality. Industry assessors need training in assessment techniques and practice.

The role of the National Training Board and the development of standards was another issue raised in the context of Peter Kirby's paper. The following points were discussed:

- how is the NTB going to maintain standards? It is assumed that they won't be setting standards without reference to industry. In addition it is also assumed that the standards that are developed are within the capabilities of the various training authorities and institutions.

- following on from this, the NTB should identify industry needs on a national basis. Industry in turn, should nominate national standards for specific sectors to the ITCs who then refer them to TAFE and the NTB.

- it is of paramount importance that the NTB establishes mechanisms whereby total quality is assured.

- the NTB should be seen as a mechanism for identifying national standards which the individual TAFE system will use for their curriculum development. This would result in national consistency but with State flexibility.

Recommendations

To the National Board of Employment, Education and Training, that by the end of 1991 NBEET will:

- document and describe existing vocational educational and training systems.

- propose recommendations to nationalise systems and structures to produce a coherent national vocational education system.

And by June 1991:

- a national system based on the report be established. A coherent system is one that:

  - has recognised standards and awards;

  - avoids waste and duplication in curriculum and resource development;

  - provides an integrated, adequate national funding scheme which includes incentives for spending on national priorities;

  - is properly articulated to give full credit for competencies already held.

To NBEET:

- in view of the plethora of institutions and bodies involved in vocational education that a schematic diagram of relationships between these bodies and their functions be produced.

To ACTD:

- lobbying effort required (perhaps through ACTC and ITCs) to advance the major recommendation above.

SUMMARY AND CHALLENGES

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Earlier this year in the **Financial Review** I wrote about one building employer who called in all of his workers and said that, in order to avoid any trouble, they were being immediately upgraded to 'tradesperson: special class'. This vignette gives a perfect introduction to my comments on this conference, which are under three main headings:

- training context
- assessment and standards issues
- challenges

because so much of Australia's training context is summarised by that employer's attitudes and action; the assessment and standards issues have to bear in mind the harsh realities of the context; and the challenges (in this case) are obvious.

Let's turn to the first of the main headings.

Training Context

We are passing through massive industrial and social change, unprecedented since the Industrial Revolution. Indeed, we are in the midst of a late 20th century revolution, and many of us will live through at least one, possibly two, more revolutions. (These are likely to be in the use of new materials and in energy transfer.) The present revolution is producing a growing awareness of the importance of training (as Greg Ramsay pointed out in his after dinner speech). The context for this training is important, and so there are four (provocative) generalisations regarding training context that I would like to state and discuss.

- *Industry restructuring is one of today's most misunderstood and abused terms*

A number of papers, and workshop discussions, made reference to restructuring. Outside the confines of a conference such as this, there is widespread confusion about the jargon. Wage restructuring, award restructuring and industry restructuring are not synonymous even though the media use them interchangeably. Wage restructuring is a sub-set of award restructuring which incorporates wage structures, productivity, career paths, workforce structure, job demarcations, multi-skilling and training.

Industry restructuring is an overarching term which incorporates tariffs, export orientation, industry rationalisation, deregulation and the introduction of new technology. Restructuring is not just about getting wage increases, it is about: job redesign, life-long training, career opportunities, multi-skilling, quality, efficiency, job satisfaction, and raising the nation's skills level, all of which are relevant to this conference.

As well as the key place of training in restructuring, note the implied importance of mechanisms to determine whether or not workers possess the skills to allow them to move from one level to another. The place of the National Training Board in setting national skills standards (as outlined in Graham Slee's paper) will be crucial in this. Also, as one of the discussion groups pointed out: uniformity of mechanisms need not mean delivery uniformity.

- *Industrial training is in a sorry state*

Bryan Jones provides a succinct account of what industry wants from the training system. Additionally, there seems to be growing irritation about the complexities of, and differences between, different training systems. ABS statistics in the days prior to the training guarantee do not present a rosy picture of training commitment, and detailed case study research shows that:

- training is frequently not approached systematically
- there is a serious lack of supervisor training
- training policies are generally non-existent.

In this country we have inherited the worst from the USA and the UK (that is, the UK's authoritarian approach, linked with its 28% of 16 year olds either unemployed or without any qualifications, decreasing to only 26% by the age of 21 years; and the USA's quick-fix, glib solutions). As one discussion group said: we must not forget the cultural aspects of Australian industry.

This conference has shown that training must be a partnership involving TAFE, industry, private providers and clients. We can learn from others' experience, and that is why Dr Laur-Ernst's and John Fuller's contributions were so interesting.

- *Vocational education is highly institutionalised with too great an emphasis on delivery*

Consider a typical student in most college courses who must enrol on a fixed date, must attend courses at fixed times in fixed places, is taught in a fixed (same) way as others in a class, must attend a fixed course of fixed length which starts and finishes at fixed dates, and who is assessed at a fixed time using a fixed form of assessment.

The word 'fixed' was used nine times and, clearly, this must change if clients are to be offered the flexibility they need and if competency-based training and assessment are to stand a chance. There are strong signs that this is starting to happen, and Peter Kirby in his paper reinforced this.

Delivery is only one component of:

1. evaluation and analysis
2. curriculum and materials development
3. delivery
4. assessment and accreditation

TAFE may be involved in all, or part, of this. However, all stages are important and none must be neglected. Please note, this is not a linear progression: frequently it makes sense to start with assessment and accreditation as was pointed out in the round table session. Also note the strong link between 'standards' and assessment.

- *Australians remain (vocationally) under-educated*

Comparisons with countries we admire give support to this statement and Richard Sweet's paper provides some evidence. One consequence of industry restructuring has been to reveal the high level of illiteracy in the workplace. However, the real problems (for vocational education) start in the school and this conference has not recognised that fact.

Schools offer time-based courses and norm-referenced assessment, using a curriculum mostly dictated by universities. Universities will never admit to becoming involved with competencies, and the term 'skill' is an anathema to them. Articulation, therefore, becomes even more difficult. As John Foyster has pointed out, 'competent' in universities means 'marginally satisfactory'!

At the moment, TAFE is being used to help solve many of the schools' Years 11 and 12 problems, often caused by teaching inappropriate courses in inappropriate facilities. It is important that school curricula start to reflect the needs of the majority of students, not the minority who will proceed to universities.

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The training context then, is one of rapid industrial and social change, with unsympathetic school and university providers, with a lack of general community understanding of what is happening, and some irritation with systems differences, with training which needs to undergo a metamorphosis. Against this background we turn to important assessment and standards issues.

Assessment and Standards Issues

I was surprised that so few of these issues were discussed at the conference. Of course, the assessment and standards debate is not new: it has always been an important feature of education (at every level) although the definition of 'standards' (and even of assessment) has not always remained the same.

Questions like 'Should we be travelling down this particular path?' or 'Is the vehicle the right one for the journey?' or 'What are the full implications of making this journey?' were not dealt with in any major way. (The honest answers are political in nature!) However, the COSTAC report by Michael Murphy is an important document for the current debate, and Peter Thomson (with other round table participants) touched on important issues.

I believe there are two generalisations which I should make:

- there are major pitfalls to avoid in competency-based training and assessment;
- the 'barrow loads' of competent research carried out over decades into behaviourial objectives, programmed learning, assessment and learning theory must not be ignored.

First of all, then, the major pitfalls.

Pitfalls to be avoided

The first of these is the definition of 'competence'. An underlying conference theme regarding a number of key definitions was confusion! We need an agreed, national definition of competence which satisfies agreed criteria such as the following:

- must not be idiosyncratic;
- must be related to (at least) knowledge, understanding, skills and performance (see the FEU publication);
- components of competence must provide evidence about three elements
  - details of the range of skills performed within the competence and take account of both:

    routine skills

    non-routine skills
  - the standards of that performance in terms of such things as:

    a production rate

    an error rate

- a level of quality
- the conditions under which performance is required. (See John Foyster's publication.)

Here are four definitions plucked from the literature:

> 'The ability to use knowledge, product and process skills and, as a result, act effectively to achieve a purpose'.
>
> 'The possession and development of sufficient skills, knowledge, appropriate attitudes and experience for successful performance in life roles'.
>
> 'The ability to perform the activities within an occupation or function to the standard expected in employment'.
>
> 'The ability to perform a particular activity to prescribed standards'.

The second pitfall is to assume that 'measurement' is absolute, that an assessment made by an experienced supervisor will be accurate. (Hence some remarks made in the conference did worry me.) For example, it is possible for a person to give the impression of competence, whereas detailed questioning shows that the person lacks understanding; and, conversely, it is possible to appear to lack competency because of inconsistency of performance (a common human failing!). However, in order to cope with measurement unreliability we must not let excellence be demoted to minimum competency testing.

The third pitfall is to insist that there is one, and only one, way to generate standards. Often the best way is to start with assessment and work backwards from there, as was pointed out at the round table.

Now let's have a brief overview of past research in parallel areas.

Past research

Behavioural objectives: The behavioural objectives debate of 20-30 years ago sounds awfully like the skills debate of today. Instructional design, but especially task analysis, looks very similar to present competency statements. I know that functional analysis proponents are adamant that 'task analyses ... describe activities or methods - "like operate a photocopier"' and that 'functional descriptions will concentrate on outcomes not methods', but that is just like the debate over the use of verbs conducted in the behavioural objectives arguments. Behavioural objectives are dead - long live standards! (It has been pointed out to me that the competency-based approach is trying to avoid the worst excesses of behavioural objectives by emphasising the holistic nature of competence; most competencies require a range of skills to be performed. However, this was also true of objectives, which were merely renamed 'aims'.)

Why did the behavioural objectives movement die and what can we learn from it? It died because it was pedantic and stultifying. People just didn't learn like that. Further, every attempt (and millions of dollars were spent on this) to verify taxonomies of educational objectives failed.

What we learned from the movement was to stop making education a mystery tour with no apparent destination, but to show what destination we were trying to reach and to devise assessments which tested whether students had reached it.

Programmed learning: This died for similar reasons, but we discovered that learning could be managed (more about this later) and that students did not all have to work at the same pace. A sensible application of this has taken place in some colleges, and one college's work is described by Alan Wickenton.

Assessment: We know what causes increase or decrease in validity and reliability of every type of assessment instrument. We know that assessment of on-the-job skills is notoriously unreliable, that there must be careful training of assessors and that rigorous guidelines are necessary. I appreciate that much assessment research was done on norm-based (not criterion-based) testing. Nevertheless, my statements still stand.

Learning theory: Learning is cumulative, and this has serious implications for modular approaches to training. (I have in mind work by researchers such as Robert Gagne.)

Much learning, especially higher order learning, is unobservable. Competency statements about the unobservable are difficult to phrase. We must take care not to focus on the trivial at the expense of the important, thus inadvertently deskilling.

Challenges

A conference such as this throws up many challenges and some of these are reported in the workshop and discussion summaries. I would like to mention four challenges.

Let's make important matters readily understandable

Important matters have been discussed at this conference. We have touched on quality training, valid and reliable assessment, articulation (one group asked 'Why does Australia have such an abysmal record in granting credit?'), nationally recognised accreditation, competence and skills. The time for slogan shouting is over, it is now important to make these matters understandable and workable. The media package described by Cathy Barry and Peter Davy was encouraging in this regard.

Teaching is different from work in industry or commerce in one very important respect: success or failure in a college is almost entirely dependent on the efforts of the individual teacher, and so it is at that level where much effort is needed.

By now, approaches to, and mechanisms for (nationally recognised) accreditation of qualifications are problems which should have been solved. Pamela Walsh's paper describing the accreditation of independent business colleges is a first step in the process for that group of providers.

Let's learn from the past and build on solid foundations

Opinions on assessment and standards in vocational education and training abound and most are merely anecdotal or show prejudice. Let's learn from past, parallel research and let's conduct useful investigations to support current developments, like the COSTAC funded project described by Peter Thomson. Also it was encouraging to read of the detailed, painstaking work reported by Richard Sweet on the competency-based link between school and work.

Don't let's stultify training

Competency, by definition, is outputs-based. There are dangers in this because inputs and processes matter; and outputs mustn't be limited by narrow definitions. Let's ensure that prior learning gets its proper recognition, as outlined in Alan Brown's paper and Derek Casey's report.

Competency-based training and assessment are really management (of learning) issues

This is my most important generalisation. Management is what we should be talking about. The challenge is to grasp this fundamental truth and not to lose it in the debate. Fortunately, one group did have a recommendation on this.

'Management' as a discipline is fairly new. Only 50 years ago there were fewer than 100 management titles, in any language, in the entire world! Management is still not taken terribly seriously in educational circles, but must be taken seriously by everyone (not just by those in the vanguard of the standards movement) if competency is to be used properly as a management tool. As such, it will (for example) remove the emphasis on training location and can improve learning (and teaching) efficiency.

However, as with all management tools, success will depend on the quality of the manager, the manager's competence, commitment and vision, and the manager's ability to understand and use the tool sensibly! Competency-based training and assessment in the hands of the incompetent manager would be disasterous.

I'll close by quoting from Vygotsky:

> Investigation of intellectual capacity ... necessarily tests the experimenter as well as the subject.

All of us are now on trial.

References

I have drawn on the conference papers and group discussion reports in preparing this article. In addition, the following have also been used:

CEDEFOP. (1990). *Education and Training in Europe.* Berlin: European Centre for the Development of Vocational Training.

Foyster, J. (1989). *Getting to Grips with Competency-Based Training and Assessment.* Adelaide: TAFE National Centre for Research and Development.

Further Education Unit. (1984). *Towards a Competence-Based System.* London: FEU.

Further Education Unit. (1986). *Assessment, Quality and Competence: Staff training issues for NCVQ.* London: FEU.

Hall, W.C. (1990). Change of name, but the tune remains the same. *Financial Review*, Thursday, June 14, 1990, p.75.

Hall, W.C. (1990). Eight steps to a new industrial landscape. *Financial Review*, Tuesday, March 13, 1990, p.15.

Hall, W.C. (1990). *What Future for TAFE?* Adelaide: TAFE National Centre for Research and Development.

Mansfield, B. (1990). Functional analysis - a personal approach. *Competence and Assessment* (Special issue).

National Training Board. (1990). *Setting National Skills Standard: A discussion paper.* Canberra: NTB.

Scottish Vocational Education Council. (1988). *The National Certificate: Guidelines for module writers.* Glasgow: SCOTVEC.

Wood, R. & Power, C. (1987). Aspects of the competence-performance distinction: educational, psychological and measurement issues. *Journal of Curriculum Studies*, 19, (5), 409-424.

PART 2: WORKSHOPS

SKILL STANDARDS IN THE TEXTILE CLOTHING FOOTWEAR INDUSTRIES

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Introduction

When I first accepted the invitation to speak at this conference several months ago, I actually thought - naively as it turned out - that the textile clothing and footwear industries would have their national skill standards all sorted out and that I'd be standing here giving you a concise history of how we did it. Well, developing skill standards in the TCF industries hasn't been as simple as that, and I'll discuss the reasons for that a little later. So, instead of a brief history, I'll give you a progress report.

Before I start, I'd like to make some comments about the TCF industries. I will follow these with some discussion about why the TCF industry is developing skill standards and what we've done so far. I will finish by discussing some of the broader issues which have emerged from our work.

Background to the Textile Clothing and Footwear Industries

Some knowledge of the TCF industries is useful in understanding the complexities of developing national skill standards and national training arrangements. First, we are dealing here with three separate industries whose differences are more frequently emphasised by employers and unions than are their commonalities. The textile industry, for example, is a capital intensive industry, in comparison with both footwear and clothing, which are labour intensive. This single difference has important implications for the way in which work is organised and, hence, for the way in which skills are used.

In a modern spinning mill, for example, you will find a comparatively small number of operators with responsibility for a bank of complex machines. In contrast, the making-up room of a typical clothing factory will consist of tens of workers, usually female, working at single machines.

People in the three industries frequently point to further differences, based on the type of machinery being used, the process under way, the products being produced and the market being targeted. The market of a low cost pair of sneakers is, for example, quite different from that of a pair of fashion shoes. This, in turn, may influence the quality of the product and therefore the standard of skill required.

These differences inevitably affect the way in which skill standards are developed. It is not possible to work in skills with employers and employees from the three industries together, and it can even prove difficult to persuade different sectors of a single industry that they can work profitably on such a task.

This is most true of the textiles industry where we have usually found it necessary to work individually with people from weaving or from spinning or from carpet tufting or from the many other sectors of the industry.

Apart from being time-consuming, this creates another potential problem - a tendency for difference to mask commonality, thus making the development of national skill standards which lead to greater consistency in training provision and to improved portability much more difficult. Our response in TCF has been to acknowledge such differences while gradually gathering evidence on those skills which appear to apply across the three industries, across a single industry, across a sector of an industry, or which apply to a particular enterprise or machine. These different dimensions of skill are also reflected in the national training framework which has been developed in the TCF.

Like most manufacturing industries, the TCF has a high proportion of workers from non-English speaking backgrounds. This not only affects the training requirements which will arise from industry and award restructuring, it also influences the way in which information about skills is obtained.

Also like some other industries, notably the car industry, the TCF is undergoing major - and painful - change. Industry policy, award restructuring and the ongoing effects of technological change are influencing all aspects of the industries. But what I have perceived in 1990 is the loss of morale created by the economic downturn; as companies close, move to shorter working weeks, or reduce the size of their workforces, the time and commitment available for developing national skill standards dissipates. Even those companies who consider skills formation integral to their long-term survival have difficulty in giving time to skills and training development.

Why the TCF is Developing Skill Standards?

So, given those introductory comments, one might well ask why the TCF is developing skill standards. There are two main answers to this question.

First, once the industries moved down the path of award restructuring and the creation of skill-based career paths, it became clear to many that skill standards would assist enormously in implementing the new awards. Skill standards can assist by clarifying each skill level in the new award and by providing the basis for assessment at each level.

Attachment 1 gives an example of the way in which the lowest skill level for clothing operators will probably be written in the new award.

All of the descriptors in the attachment and the award skill levels are very general and deliberately so. If they were written in more specific terms, they would inevitably become much more detailed and lengthy in order to meet the many different circumstances which apply in the clothing industry. And, in next to no time, the award would have become very rigid - thus defeating one of the purposes of award restructuring.

Skill standards can help to make these general statements more concrete: we can say, for example, that minor operator maintenance consists of setting up tools and equipment, of cleaning the machine and of checking and adding oil. And, if we define these skill standards in terms of competence - the ability to perform an activity to a specified standard - we can also provide the basis for objectively assessing the skills of individuals for progression to a higher skill level or for giving credit into training.

Skill standards are also being developed in the TCF to provide benchmarks for training. Some TCF companies see skill formation as essential for meeting inevitable (in some cases already existing) skill shortages and as part of their survival strategy. They also see benefits in national accreditation and portability of skills. Other companies have begun to recognise greater benefits in training but have yet to be convinced that national standards have any relevance to them.

My own experience has been that, once work begins with individual employers and union representatives, the exercise starts to make greater sense and is seen to have value and relevance. It is particularly beneficial working with practitioners (both from employers and unions) who have a good knowledge of the manufacturing process. As these people convert production processes into tasks and then competences, they begin to see the practical means by which relevant training programs can be developed - even at a national level where our descriptors must necessarily remain fairly general.

What Process has the TCF Adopted

The information we have obtained on TCF skills has relied heavily on group activities - a process which is time-consuming but which, in my opinion, has enormous advantages. Most importantly, in diverse industries like the TCF, group work forces individuals from very different working environments to reach agreement on those duties, tasks, and skills which are common to jobs in different workplaces.

Thus, for example, clothing machine operators making a range of products (such as fashion, lingerie and jeans) reached agreement that they performed the four main duties and the tasks described in Attachment 2. They also reached agreement on the essential skills and knowledge for those tasks and they described the different levels of skill involved in operating a sewing machine - skills which were not so much influenced by the machine in use but by the type of sewing operation being performed and the extent to which fabric needed to be handled or manipulated by the operator. There are different levels of skill required, for example, in sewing a straight seam and inserting a sleeve.

Much of this information helped the industrial relations parties to develop their award skill levels. It will also provide an essential basis for our later work in defining standards.

This sort of information was collected across all three industries for a wide variety of occupations. It has also formed the basis of a comprehensive skills data base.

The information has since been refined and further developed by working groups of employers and union representatives with direct shop-floor experience in order to produce task descriptors as shown in Attachment 3. It is worth noting that the production of that simple document alone took several days.

The task descriptors in Attachment 3 may be applicable to all four operator skill levels in the award or they may apply at only some levels. Skill levels 1- 4 will all, for example, require machine operation skills (see task descriptor no. 7). We will differentiate each of the skill levels by the way in which we define the standards and by giving some examples of what the statements mean. While we have not reached that most difficult stage yet, it is reasonable to assume that, at higher levels, operators will be expected to perform tasks which require considerable skill in positioning, feeding and handling fabrics.

Some tasks may not, however, apply at all levels - the ability to evaluate a sample, for example, will not be required of operators at skill levels 1 or 2 or probably even 3.

The TCF is also trying to develop skill standards in many other areas which we have identified as common across the three industries. Attachment 4, which summarises communications skills, is one such example. Others include new technology and computing skills and mathematics.

Communication - both verbal and written - is emerging as a key skill in many industries. At this stage we have separated it from technical skills like machining, in order to more easily explore commonalities across the three industries. But such a separation is artificial and it may well be that communication skills will be more closely integrated to technical skills, especially in the training process.

The distinction we have made between verbal and written communication is also an artificial one, but it may help to clarify the communication skills requirements for different skill levels.

Finally it is worth noting that we are attempting to describe communication skills in concrete, work-related terms so that communication can be seen as relevant and useful by both employers and employees. Thus, we have provided many examples of the work-related outcomes of various communication activities. At the same time it is important to ensure that our communication skills standards are consistent with those of other industries. Nevertheless we may demonstrate the relevance of communication to the workplace if we can show, perhaps as examples, that the ability to read and interpret job tickets will enable employees to select correct materials or to successfully perform other such tasks.

Broader Issues

Because the issues which have emerged from our work are many and complex only a few will be referred to here.

The first - which has already been mentioned several times - relates to the time and resources required for this work. In the UK the Clothing and Allied Products Industry Training Board (CAPITB) undertook a similar project for the clothing industry over 3 years, using very substantial resources. In Australia we cannot take that time, yet the demands created by award restructuring have also dictated a far more ambitious approach. Interestingly, of the three Australian TCF industries however, the clothing industry has taken the lead largely because of the strong support - based on perceived need - given by both employers and unions.

A second issue which continues to lurk in the background is the question of how detailed or how general the TCF's skill standards will be. As we are talking about national standards, we cannot afford to be too prescriptive: we should be as general as possible without rendering our skill standards meaningless. The UK experience tends to bear this out. CAPITB, having first gone into great detail in its skill standards in order to demonstrate their relevance to industry, is now reworking them in a more general fashion - and has expressed great interest in the emerging Australian model.

Related to that issue is the relevance of national standards to enterprise requirements - especially in industries like clothing and footwear where there is no clear industry standard for quality and where even time-based standards (which are at the heart of many of the industries' systems of production) are by no means universally applicable.

It is, of course difficult to demonstrate the relevance of national standards while still working at a fairly conceptual level. I expect that this will become much easier once we begin to trial the skill standards and, more importantly, to assess skills based on these benchmarks. Interestingly, those companies that have begun to identify their training requirements have come up with similar responses to those developed at national level. I am convinced that, when we have finished, our benchmark standards will save many companies many hours of work.

Another question which arises is just how much should be included in a statement of competence. In Attachment 3, for example, one of the task descriptors included under making-up was 'clean work area for next operation' - hardly sufficient by itself as a statement of competence. If we were to attempt to break down tasks and skills so minutely we would be in danger of seriously fragmenting the skill standards - the opposite of what we want to achieve through multi-skilling and changes to work organisation aimed to promote quality and quick response.

Thus the format and content of the competency statements which we produce will be very important. That is part of the job which is now ahead of us. More immediately, we are about to commence industry workshops to try to reach agreement on the standards which apply to the various task descriptors developed to date.

Conclusion

I will finish by quoting two paragraphs from an overseas background report prepared for us by Alan Brown, a Victorian-based training consultant.

In his report, Brown said:

> The establishment of competency strategies should be aimed at a lasting commitment which identified intermediate and long term goals. The appeal of easy options must be resisted if they do not achieve the desired outcome.

He also said:

> It is not enough to just identify competencies; they must be inherently linked with an ongoing strategy and commitment to training and skill development. The value to industry of a highly skilled workforce is a critical factor of the competency process.

It is easy enough when you are engrossed in this work to forget why it is being done. But in the TCF there will have been no point to the process if it does not lead to the development of the broader and more flexible skills needed for modern competitive industries and if, at the end of the day, we do not have a system capable of properly recognising the skills which so many employees already possess.

CLOTHING INDUSTRY PRODUCTION EMPLOYEE

SKILL LEVEL 1

Employees at this level:

1. Machine Skills - exercise basic level machine operational skills where there is a minimal consequence of error, or

   Non-machine Skills - exercise the skills required to perform simple tasks that are not machine-based where there is a minimal consequence of error.

In addition, according to the needs and operational requirements of the enterprise, employees at this level:

2. shall work to defined procedures/methods, and
3. shall understand and apply basic quality control/assurance skills in the performance of their own work (including the recognition of basic quality deviations or faults), and
4. may be required to exercise the skills necessary to assist in providing basic on-the-job instruction by way of demonstration and explanation,
5. may be required to record basic information on production and/or quality indicators as required,
6. may be required to work in a team environment,
7. may be required to apply minor operator maintenance,
8. may commence training in additional skills required to advance to a higher skill level.

ATTACHMENT 2

DUTY 1: Servicing Machine

The servicing of the machines depends on the type (manual or automatic) and extent of adjustment required. The servicing identified refers to normal operator related tasks.

TASKS

1.1 Clean machine
1.2 Check oil
1.3 Replace needle
1.4 Replace bobbin spool
1.5 Thread up

DUTY 2: Preparing Work

TASKS

2.1 Receive bundles
2.2 Check ticket
2.3 Set out work pieces
2.4 Check pieces for flaws

DUTY 3: Operating Machine

TASKS

3.1 Set machine - replace foot, adjust thread tension etc.
3.2 Position work
3.3 Sew fabric pieces (manual machine)
3.4 Check feed

DUTY 4: Removing Work

TASKS

4.1 Remove work
4.2 Inspect sewn pieces
4.3 Rebundle pieces
4.4 Dispose of bundle
4.5 Tidy work area

ATTACHMENT 3

CLOTHING COMPETENCIES

Making-Up

Ability to:

Task Descriptor	Comments
1. Carry out operator maintenance and set up tools and equipment.	Includes: - clean machine - check and add oil - check needles and tensions - replace needle and bobbin spool - basic machine problem-solving - identify machine faults - rectify minor machine faults (NB. May require some skills in assembling and dismantling machines) - organise repair of major machine faults. Requires understanding of: - basic terminology - basic machine operation - causes of mechanical problems - implications of not maintaining machines Standards may specify: - frequency with which maintenance should be carried out (e.g. at end of process? when changing fabric or colour?) - safety requirements.
2. Interpret instructions.	
3. Check and sort the work issued and set out work pieces near machine to determine assembly sequence and comply with ergonomic principles.	May require ability to: - recognise different types of fabrics, garments, colours, stitches, etc. - recognise faults and

		problems - solve problems - visualise the look of the sub-assembly or whole garment - identify number and thickness of seams - identify most efficient way to complete for looks and quality.
4.	Determine completion timeframe and understand targets, quotas and performance.	
5.	Evaluate sample, sketch or description.	May require knowledge of: . required quality standards . different sewing techniques and their appropriateness.
6.	Identify faults and take action where appropriate.	Requires ability to: . identify number and thickness of seams . identify most efficient way to complete for looks and quality.
7.	Operate machine or perform manual task while controlling speed and adjusting fabric variations.	Refers to making-up operations only. Requires ability to: . recognise and handle different fabrics . control machine . recognise balance lines and seam lengths in garments . repair minor faults. Requires understanding of: . good seating position . appropriate location of work tables and furniture to comply with ergonomic principles. Manual task refers to hand and specialist sewing.
8.	Inspect work.	Requires ability to recognise good stitching and understanding of quality requirements.

9.	Dispose of and direct completed work.	May include packing completed work.
10.	Clean work area for next operation.	
11.	Prepare and maintain job records and complete relevant bundle or packing slips.	May include: Number of garmets, styles, colours, price/item, etc. work completed and returned.

ATTACHMENT 4

TCF : COMMON COMPETENCIES

COMMUNICATIONS

(N.B. Possible links between verbal/written especially in training)

1. VERBAL COMMUNICATIONS - May include demonstration

Ability to:

	Task Descriptor	Comments
1.	Understand and interpret verbal instructions.	
2.	Communicate with workers in own section.	. English . non-English speaking backgrounds (i.e. communicating with different cultural groups)
3.	Communicate with workers in other sections.	As above. Includes reporting problems and faults (and possible causes).
4.	Communicate with people from outside the factory.	Variety of purposes, e.g. to solve production problems, to co-ordinate deliveries.
5.	Translate and interpret from other workers.	Relevant to a variety of circumstances (e.g. between operators; between operators and management)
6.	Participate in team processes and discussions.	Active participation includes: . problem-solving . decision-making . planning . goal setting . negotiations (e.g. with marketing sales, customers).
7.	Participate in meetings.	

8.	Prepare reports for meetings	Given verbally
9.	Give instructions or co-ordinate a team.	Includes: . communicating requirements to others (e.g. verbally or by demonstration) . delegating work . assessing whether communication has been successful (i.e. message has been received and understood)
10.	Chair/conduct meetings	Demonstrated knowledge of appropriate meeting procedures and ability to conduct meetings.
11.	Maintain communication between management and operators.	
2.	WRITTEN COMMUNICATIONS -	(Literacy for the Workplace)
Ability to:		
1.	Read and interpret job tickets, specifications, computer printouts and other records.	Demonstrated ability to act on one or more of the following: . select correct materials . check item/bundle, etc. against specification . determine machine settings to match pattern design etc. . follow written instructions to complete machine operation . locate and/or pack and/or assemble order after interpreting picking slip, sales order, etc. . interpret customer requirements from contract orders, product specifications etc.

2.	Keep legible records using simple appropriate language.	Demonstrated ability to do one or more of the following (as examples): . complete a job ticket, card etc. . complete a time sheet . record containers and shipping marks . write and attach ticket, swing tag, sticker, label etc. . keep records of weight and/or numbers . fill out picking slip, docket, etc. . label packaging (address, contents, carton number) . write an accident report . order materials . keep sales and purchase orders . keep stock control records . keep records of totals and seconds . write up specification sheets . product working specifications . product and organise work tickets . keep job sheet reports of: - machine downtime and breakdowns - repairs and adjustments - machine and material faults - production records . prepare run sheets . prepare consumable requisitions . write instructions.
3.	Prepare written reports.	. clear, neat etc. . imparting essential information e.g.: - production reports - laboratory and test reports - purchasing reports Present at meetings, where necessary.

4.	Check written information on patterns.	
	Write information on patterns.	
5.	Read and interpret designs, manuals.	
6.	Develop a sequence of operation, schedule or plan of action.	Includes maintenance schedules/production planning, etc.
7.	Carry out research and record results	Includes research into styles, trends, fabrics/ materials, design, colours, marketing.

SUMMARY OF DISCUSSIONS FOLLOWING CASSANDRA PARKINSON'S PAPER: SKILL STANDARDS IN THE TEXTILE CLOTHING FOOTWEAR INDUSTRIES

These workshop discussions focused primarily on two topics - skills and their associated standards and industry training. The issues discussed under the umbrella of skills and skills standards include the following:

- skill standards should be based on new and better ways of organising work, not on the present, inadequate form of work organisation. Standards development should draw on the experience of those 'leading edge' enterprises presently achieving world competitiveness.

- standards which include higher order skills (such as problem-solving and team work skills, not just narrow technical skills) basic literacy, numeracy and communications skills to be incorporated into skills standards.

- the effect that technological change has on determining skill standards must be taken into account. As technologies change, industry expectations and economic conditions will change which will necessitate continuous monitoring of skill standards.

- what part does TAFE play in standards development? Compare for example, the TCF industries with the metals industry. The TCF restructuring has been industry-based with little involvement from TAFE as opposed to the metals restructuring in which TAFE has been involved from the outset.

- much of the workplace change agenda will revolve around change in attitudinal skills. This may however, prove difficult to incorporate into standards which should be both equitable as well as useful to the workforce.

Discussions focussing on industry training generated by the preceding paper encompassed the following issues:

- is the situation where operators train new employees entirely desirable? Is there a need for a separate classification for these trainers? Should trainers be recognised as having extra skills and be compensated accordingly?

- national consistency in training is essential but with the flexibility to allow for the needs of individual employers and enterprises.

- industry response to the training guarantee is partially determined by the size of the company. Smaller companies may try to abrogate their responsibility in the training arena. Should this be a role of the National Training Board?

COMPETENCY-BASED TRAINING: COSTAC WORKING PARTY REPORT

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Background

Some aspects of the vocational training system in Australia, in particular, the rigid prescription of qualifications based on time served rather than on competence achieved, especially in apprenticeship training, have been identified over the last decade as a contributing factor to skill deficiencies in the Australian workforce.

A number of inquiries and reports have expressed concern that the criterion of time served does not guarantee the development of appropriate skill levels and competence. This has led to a growing acceptance of the need to develop a competency-based approach in our vocational training system.

In 1982, a COSTAC Working Party on Apprentice Training and Testing recommended that all State/Territory training authorities examine procedures to ensure that trade certification was based on more than the effluxion of time.

In 1984, the Kirby Committee of Inquiry into Labour Market Programs (Recommendation 33) drew attention to the need for greater competency orientation in the apprenticeship system.

In 1985, in response to the Kirby Inquiry Report, the Australian Traineeship System was introduced to provide structured entry-level training, based on competency, in areas not covered by apprenticeships.

In 1986, the Commonwealth/State Working Group on Skills Shortages and Skills Formation emphasised that trade training should be based on agreed standards. It also recommended that Commonwealth financial assistance for trade training be refocussed to encourage change in that direction.

Also in 1986, the Western Australian Department of Employment and Training announced the New Apprentice Training and Assessment Scheme (NATAS), a program to incorporate competency-based principles in the Western Australian apprenticeship system, with full implementation in 1988.

In 1987, 'serious inadequacies' in Australia's education and training arrangements were noted by the National Labour Consultative Council report **Labour Market Flexibility in the Australian Setting**. Among these were 'deficiencies in current apprenticeship training arrangements' and 'unduly rigid time prescriptions'.

Also in 1987, a DOLAC working party was established to investigate and report to Ministers on the development and implementation of a competency-based trade training system.

A discussion paper on the costs/benefits of standards-based trade training, commissioned by the National Training Council and prepared by Nicholas Clark and Associates, was released in November 1987 and noted, 'there are both good educational arguments for pursuing standards-based trade training as well as sound economic arguments'.

In the 1987/88 Commonwealth budget, the restructuring of employer subsidies under the Commonwealth Rebate for Apprentice Full-time Training (CRAFT) program was announced, providing a mechanism through which Government financial support would be linked to the attainment of specified standards of competency. Related to this was action initiated through Commonwealth/State consultative mechanisms to develop a policy for moving the apprenticeship system from time served to a competency basis.

In 1988, DOLAC considered the report of its working party and agreed that it should be published as a discussion paper. This was widely distributed throughout Commonwealth and State/Territory networks seeking comments from training and educational authorities, industrial parties and other interested parties. COSTAC was requested to pursue consultations and report to Labour Ministers.

The Structural Efficiency Principle established by the Australian Industrial Relations Commission in the 1988 National Wage Case focussed particularly on the need to expand and improve Australia's vocational training system and to develop competency-based training and assessment.

The Special Ministers Conference on Training in April 1989 was a significant step in addressing the need to develop a more efficient and effective training system. Taking up the discussion paper prepared by DOLAC, the Conference committed all States and Territories to work towards the development of a competency-based training system not only in the trades areas but also one which would encompass all occupations covered by awards or industrial agreements. COSTAC was requested by the Ministers to develop an implementation strategy for a CBT system and, while specific timelines were not drawn, Ministers sought substantial progress towards implementation by 1993. A COSTAC working party was formed to promote this work.

Against the background of the Award Restructuring process flowing from the Structural Efficiency Principle, and the need to ensure that the vocational training system is properly responsive to industry need, the Working Party has undertaken extensive consultation with peak industry bodies over the past year.

A set of principles has been developed through this process which has underpinned work undertaken to produce a strategic framework for the implementation of a competency-based system. A copy of the Principles may be found in Appendix 1.

Because of the complexity of addressing relevant issues, COSTAC has undertaken, or been involved in a range of further activities intended to complement the work of the Working Party. These have included:

- a range of CBT pilot projects undertaken by the States/Territories with financial assistance from the Commonwealth's Innovative Training Projects program.
- the preparation and publication of a report on the costs of award restructuring (COSTAC Consultancy, Costs of Award Restructuring, June 1990).
- the preparation and publication of an information paper on accreditation arrangements (COSTAC Overview of Official Accreditation Arrangements for Vocational Courses/Training Programs, June 1990).
- the commissioning of the TAFE National Centre for Research & Development to prepare an inventory of CTB courses in TAFE.

As a result of these initiatives,

- a Secretariat is being established within the South Australian Department of Employment and TAFE to evaluate existing pilot projects and to provide a better co-ordinated focus for future projects.
- the Conference of Commonwealth and State Labour Ministers established the Training Costs Review (Deveson) Committee to examine initial and continuing training costs in TAFE and options for securing additional resources, given the distribution of benefits from training and the need for equity of access to training.
- Ministers have asked COSTAC to undertake further examination of the issues raised in its overview of accreditation arrangements and to report back to them early in 1991 on measures which will facilitate the development of processes which are nationally more consistent and effective.
- the TAFE National Centre has now completed its inventory and has found that only 13% of vocational courses meet the criteria of being competency-based, and that in only 57% of these was attainment of competencies required to obtain a pass.

The COSTAC Working Party has now completed its draft report. After a further round of consultations with industrial and other interested parties, it will present its final report to the Special Meeting of Ministers to be held on 2 November.

The Working Party has not sought to develop a prescriptive implementation plan but rather a strategic framework within which consistent, orderly and cost-effective progress may be made. Its intention has been to provide a vehicle to enable all parties to carry the process forward in a co-ordinated, coherent way by the development of detailed and specific implementation plans, based on the experience and insights gained through existing competency-based programs, pilot projects, consultation and further research.

Principal Issues Addressed in the Report

- *The Need for a Quality Vocational Education and Training System*

Australia is a resource-rich nation and, historically, our infrastructure and industry base have developed around a low, value-added, commodity/resource export strategy. As we learned in the early 1980s, this strategy leaves Australia vulnerable to fluctuating world prices in commodity and resource markets. To ensure that even our current standard of living can be maintained, it is imperative that we develop value-added industries that are competitive in international markets.

To accomplish this, we will need to compete with economies that have not had the natural resources that Australia possesses. These economies have instead developed their capital and human resources to provide the competitive edge, and Australia must now follow this path.

In the face of the globalisation of world markets and the need for international competitiveness, Australia has embarked upon a program of structural adjustment and micro-economic reform which will rely a great deal on responsive, high quality and reliable training outcomes. The achievement of these quality training outcomes will require significant enhancement and reorientation of current vocational training arrangements and structures.

It will also involve the implementation of a number of specific innovations including: the modularisation of curriculum; greater flexibility in teaching and learning techniques and training pathways; greater utilisation of appropriate technologies to ensure access to training; the integration of workplace and off-the-job training components where they exist; and a competency-based approach to the delivery, assessment and certification of training based on agreed national competence standards.

These and other improvements taken together and applied in a flexible, realistic fashion, will provide the basis for a quality vocational education and training system to meet the challenges created by industry and award restructuring. However, while they are highly complementary, it is not necessary to implement them as a package. In their own right, each innovation represents a significant enhancement to the quality of vocational training in Australia.

While reference is made to each of these developments in the Report, it focusses in particular on the progressive introduction of a competency approach to training. This particular change has been identified by the industrial parties, governments and training providers as a cornerstone for reform of the vocational education and training system. Significant steps have already been taken towards its achievement, by the creation of a National Training Board (NTB) to co-ordinate the establishment of national competence standards and the funding of CBT pilot projects by Commonwealth, State and

Territory Governments.

While all parties recognise that competency-based training (CBT) is not a panacea to overcome all the demands facing the vocational education and training system, the significant commitment of resources to its implementation indicates the importance placed on a comprehensive CBT system, underpinned by nationally agreed skill standards, in order to provide a more highly skilled and flexible workforce.

Against this background, the Report addresses three key factors set out in the following sections of this paper.

- *Standards*

Standards, developed by the industrial parties and ratified by the National Training Board are the linchpin and should provide the basis for a competency-based training system.

A standard is a precise statement of what an employee is expected to be able to do in a job. It identifies the activity the person must be competent in and the criteria, in performance terms, for judging that competence. In other words, competence standards focus on the desired work outcome not on the learning processes or qualifications which will lead to, or result in that outcome.

The purpose of setting standards is to improve the skills of the workforce, and thereby increase productivity and economic competitiveness. To achieve this goal, however, standards will have to reflect a broad view of the competencies required at work, and include all aspects of the performance and management of tasks, both routine and unusual. This will mean that standards will need to describe competencies in terms of an action, behaviour or outcome which a person should be able to demonstrate. It is only with the existence of comprehensive, reliable standards which are easily understood and applied, that quality of work performance can be pursued and assessed in a meaningful way.

Standards are central to the CBT process of moving vocational qualifications from a focus on inputs such as course completion and time spent in training, to a focus on outcomes such as demonstrated knowledge, skills and application at the required level. Standards make such a shift possible because they provide competence-based reference points, or benchmarks, for all aspects of an improved vocational education and training system, and include curriculum development, training delivery, assessment and certification and the integration of workplace and off-the-job training programs. They also create the necessary vehicle for the recognition of competencies gained informally and qualifications held by people trained overseas.

A further desirable reform to the vocational education and training system which is made feasible by the setting of standards, is national consistency in training outcomes and qualifications. This would ensure the fullest possible portability of skills, knowledge and qualifications across States/Territories and industries, the absence of which has been a major barrier to labour market flexibility and productivity to date.

To achieve national consistency, the recently established National Training Board (NTB) will co-ordinate the development of standards for all occupations (from entry to para-professional level) incorporated in industrial awards and agreements. It is well into the process of consultation, and development of guidelines and frameworks for this task.

While the NTB will ratify standards the developmental work on them will necessarily involve an extensive, co-operative process between the industrial parties, State/Territory training authorities, the NTB and the vocational education/training provider sectors. It is clearly recognised, however, that the industrial parties have the primary role. Standards must be set by industry itself to ensure accurate reflection of the current needs of the workplace and the potential skill and knowledge requirements for the future.

It needs also to be recognised that moving towards standards-based training and assessment will be a staged process. While the remainder of the Report assumes the central role of national standards in a CBT system, the design and development of programs of training both in the workplace and off-the-job will need to continue in many instances ahead of their ratification. In these cases, interim standards may have to be negotiated to provide the basis for CBT delivery in the short-term. However the design of programs of training and the mechanisms for their review will need to be dynamic and flexible enough to accept the modifications required when relevant NTB-ratified standards emerge. This flexibility should in any case be built into training design and delivery to take into account changing technology, work processes and labour market requirements over time.

Care must be taken that standards setting processes and mechanisms are efficient and effective, and result in meaningful and useful outcomes, thereby ensuring that standards setting does not become a major cost burden on industry and the community.

- *Delivery of Competency-Based Training*

Competency-based training requires adjustment to the way training is presently delivered, as well as assessment and certification of the attainment of competencies. CBT has application across the full range of training provision, whether in the workplace or the education and training institution. It can be applied to all occupations and all levels within an occupation, and undertaken as part of obligations under a contract of training, or simply as a more effective way to deliver workplace-specific or institution-based training. Consistency will be achieved by basing training delivery on applicable national standards.

Given the scope and complexity of the task, it will be useful to set targets for the implementation process. Despite the pressing need to improve training outcomes as quickly as possible in the light of award restructuring and productivity requirements, resource constraints will mean that targets will have to be realistic and agreed upon by all parties involved.

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Integrated Delivery of Training

One of the most valuable aspects of a CBT system based on nationally agreed skill standards is the foundation it provides for integration of training in the workplace and off-the-job. The absence of integrated training structures has been seen as a major weakness of the current system. While not all training provision will, or should include both components, where both do exist they need to be integrated for mutual reinforcement and to ensure full attainment of competence by the individual undertaking the training.

The potential for integration of training extends, however, beyond the workplace and institutional training. The existence of agreed national standards will play a crucial role in providing the necessary linkage or integration of all types of training, including government-funded labour market programs and some aspects of upper secondary schooling, into a comprehensive CBT system. Consideration therefore will need to be given to the development of appropriate processes and mechanisms to ensure the incorporation of these training environments in the CBT system.

Integration will involve a new approach to curriculum development. In most instances where integrated curriculum currently exists, it has been developed between specific TAFE colleges and specific industries or enterprises. At present no single national body has responsibility for co-ordinating the development of integrated curriculum. However, there are a number of bodies at the national level with potential involvement in such a process, including the Australian Committee on TAFE Curriculum (ACTC). Consideration will need to be given to the future role of the ACTC and other bodies in light of the need to integrate workplace and off the job training.

TAFE is, and will continue to be, the major provider of vocational education and training. Its role in the implementation of CBT will therefore be crucial. With this in mind, the Commonwealth Department of Employment, Education and Training, on behalf of the Working Party, commissioned the TAFE National Centre for Research and Development to undertake a consultancy to produce an inventory of competency-based approaches in TAFE vocational courses and programs.

The intention of the consultancy was to provide information on the extent of the development which may be required in TAFE to move to a CBT approach, and the background for the planning of strategies and timetables for any necessary changes. It will also assist in setting priorities for, and cost estimation of conversion; developing a co-ordinated approach to pilot projects; ascertaining needs for staff and materials development; and, ensuring the progressive co-ordinated development and delivery of CBT programs.

In addition to curriculum development, the need exists for the development of administrative mechanisms to integrate training in the workplace and off the job. Such mechanisms relate to the development of competence schedules, the allocation of training responsibilities between the workplace and off-the-job providers and the use of contracts of training. Western Australia has developed this type of approach in its New Apprentice Training and Assessment

Scheme (NATAS). An evaluation of NATAS, in terms of its relevance and effectiveness would provide some useful insights in the development of a nationally consistent system across the States and Territories.

In a CBT approach, based on agreed standards, these three steps are closely related to one another. Taken together they form the industrial relations basis for integrated training arrangements. In the case of approved or regulated training, State and Territory training authorities will use competence schedules to define and allocate training responsibilities under contracts of training. The scope of this regulatory framework is to be determined by State and Territory training authorities in consultation with relevant industry parties.

Training in the Workplace

It is clearly unrealistic to expect the immediate imposition of elaborate training structures within industry. Initially employers' fulfilment of responsibility for workplace training may be no more than the systematic provision of an appropriate mix of work experience, while the process of building training expertise and infrastructure on the job advances. All governments expect that this will change over time, however, with employers undertaking a progressively greater role in vocational education and training.

In the interim, the essential difference from current arrangements will be that, in the case of structured training such as apprenticeships, the responsibilities will be allocated and specified via the competence schedule and the contract of training, and work experience will be based on performance objectives expressed in the form of nationally agreed standards. These changes also have implications for assessment and certification, which is discussed in the next section.

It is expected that there will be instances, either in industry sectors or particular occupations, where employers who are required by State and Territory training legislation, or who wish to enter into contracts of training with employees will be unable to delivery the breadth and quality of training or structured work experience needed to complement the off-the-job training component. In those cases a number of alternatives, such as use of skill centres or employer rotation schemes exist which will enable them to meet their training obligations. These alternatives may also prove useful to employers wishing to provide workplace training outside contractual arrangements.

A major issue arising in the implementation of CBT is the need to develop the skills of trainers. It is important to recognise that differing types and levels of trainers will be required in the workplace. There will sometimes be a need for full-time trainers, but more often managers, supervisors and co-workers will fulfil the role. This diversity will require a range of strategies to train and resource the trainers. These strategies will need to take into account issues of recognition of trainers and their own career paths.

There are a number of ways in which these needs can be addressed. For example, exchange programs between industry and TAFE would benefit trainers from both sectors, as would generic trainer-training modules incorporated into courses and programs of training delivered in the workplace and off the job. The Employment and Skills Formation Council (ESFC) of the National Board of Employment, Eduction and Training (NBEET) is preparing advice to the Federal Minister for Employment, Education and Training on trainer-training.

In addition, the Commonwealth Standing Committee on Industry, Science and Technology has recently released a report entitled **Small Business in Australia: Challenges, problems and opportunities** which addresses concerns regarding the lack of business education or experience held by most small business owner/managers.

The NTB, in developing its guidelines on standards setting, will need to consider the inclusion of training standards. This could be approached as a component of overall standards for industries and occupations.

Training Off The Job

In the area of formal, off the job vocational training it is expected that TAFE will continue as the major provider. Therefore its role in the successful transition to a competency-based training system will be pivotal. This raises the need to examine the capacity of the resource and teaching patterns of TAFE to accommodate a CBT system. Already, some TAFE courses have been redesigned with a CBT emphasis, but early indications from the consultancy on the Inventory of CBT programs in TAFE give rise to some concern about the possible extent of further necessary development.

Staff development needs in TAFE are also being addressed and the Commonwealth has given some priority to this matter in is provision of TAFE funding in 1990, with $3.5 million provided for this purpose. Emphasis will be placed on training in techniques for delivery and assessment of competency-based training. A National Review of Teacher Preparation is being undertaken to prepare a strategy for TAFE staff development.

There is, however, concern about the varying capacity of States and Territories to meet the expanded and altered training requirements emerging from the award restructuring process. While not providing the answer to the problems raised by increased demand, there may be room for organisational responses from TAFE to make more intensive use of the existing TAFE infrastructure, and to develop more co-operative arrangements involving greater use of industry buildings, equipment and materials.

The growing demand from industry parties and constraints on government expenditure will require more flexible responses from TAFE and is likely to lead to the emergence of a greater range of training providers to choose from. Private training providers will have an increasingly significant role in off-the-job training. DEET has funded a survey of Australian private education and training providers by Reark Research to determine the number of students enrolled in relation to the type of courses provided. Field research is complete, and data analysis is presently underway.

It is the view of the Working Party that there is a need to ensure that off-the-job training providers move as quickly as possible to adjust their delivery to a competency basis.

Of primary concern in a CBT system is the requirement that all training providers deliver training based on nationally agreed standards. While the mechanisms exist in the TAFE sector to ensure this requirement is met, formal recognition of private training providers or the programs of training they deliver, has only recently begun and is patchy as yet. The States and Territories are however moving to rectify this, with legislation for the recognition of private providers and the accreditation of their courses existing in most States, and pending in the others.

These arrangements, and their implications for the articulation of courses and programs within, and between training sectors are crucial to a competency-based training system. While accreditation and recognition of providers are central to the implementation a CBT system, the issues which arise from a consideration of these functions are of such dimensions that the Working Party has undertaken a separate but related exercise on these particular issues. As an aid to better understanding of current and proposed arrangements an information paper has been produced and recently published by COSTAC. A further paper, complementary to this CBT Report is being prepared to canvass the major issues and suggest options for the development of a nationally consistent process.

The most favoured recognition mechanisms emerging with regard to private providers are voluntary registration (except in instances where legislative requirement for registration exists) and subsequent voluntary accreditation of their courses or programs of training. The market is then left to select appropriate training providers.

The States and Territories have legislative responsibility for the registration of providers and the accreditation of their courses and programs of training, and a national framework and guidelines for accreditation is provided through the Register of Australian Tertiary Education (RATE).

Award restructuring is leading to new career paths and removal of barriers to access to entry training by adults, and the expansion of further education and training. In addition, increasing school retention rates is significantly changing the traditional entry points into vocational education and training by young people. For example there is now a higher proportion of school leavers with Year 12 entering apprenticeship. CBT provides the opportunity to better cater for these developments and facilitates the creation of more flexible entry and exit points in training.

Under these circumstances entry to training will need to be based on assessment of competence at entry rather than on the traditional methods of age or level of educational attainment.

Training Methods and Resources

In formal, off-the-job training, the use of modern technology and distance/non-contact techniques provides the opportunity to significantly broaden access and achieve economies in delivery. Other techniques such as flexible sequencing within modular course structures and self-paced, individualised learning are particularly well suited to the delivery of competency-based training. It is generally accepted that the full potential of a CBT system will only be realised through innovative teaching strategies, tailored to the needs of both individuals and industry.

The application of CBT methodology and training techniques will have to be explored more thoroughly in the workplace. There will be no one prescribed way of improving on-the-job training delivery or, when required, its integration with off-the-job training. Training packages will need to be developed with an understanding of workplace reality and diversity, and the need for flexible approaches. However, in a CBT approach it will be necessary that, whatever arrangements are agreed, they be based on defined standards ratified by the NTB wherever possible.

The most pressing need for industry-based trainers in the short-term will be the provision of relevant, quality training guides linked to integrated curriculum. On-the-job training guides exist in many areas, but will generally require revision and adaptation.

This is a potentially resource-intensive area that requires a co-ordinated, co-operative effort across States/Territories and industries to ensure that the most cost-effective and useful products are developed. The co-ordination mechanism recently established for the CBT pilot projects may provide an appropriate vehicle for this process.

Similarly, there is a great deal to be gained by continuing co-operative arrangements for the development of curriculum materials between TAFE and other vocational education and training providers. The production of CBT curriculum materials for use by TAFE and off-the-job providers will account for a considerable part of increased resource requirements in the off-the-job training context. Good curriculum materials can assist self-paced learning techniques. Clearly there is also scope for the exchange and sale of materials between TAFE and private providers.

As well as co-operative development arrangements, similar resource savings may be obtained by reducing duplication by the establishment of a teaching and learning materials 'bank'.

Marketing CBT

A final issue to be considered in the training delivery context is the marketing of CBT in general. It is an evolving concept in Australia and new to most people outside (and many within) educational institutions. As such, a great deal of effort will be required to translate its workings and potential benefits into the parlance of the diverse groups within industry, education and vocational training, government and the community, in order to clarify their various roles and responsibilities with regard to the new system, and to explain its value. Increasing awareness and motivating positive co-operation through professionally developed promotional material could significantly assist in the implementation of a CBT system.

- *Assessment*

In the Report, assessment is defined as the formal process by which a judgement is formed about whether an individual meets a specified standard of competence. National standards will provide the framework for objective, consistent assessment, both in the workplace and/or in a simulated work environment off-the-job.

The assessment process is designed to produce certification of individual attainment of competencies, for the purposes of eligibility for further training or employment at an appropriate level. It is also recognised that, along with standards and delivery, assessment and certification will have a significant role in integration of training in the workplace and off-the-job.

Nature of Assessment

CBT focuses on behaviourial objectives or outcomes, but it is not simply concerned with the manual capacity or motor skills of a person. It needs to encompass the full range of knowledge, skills and application that a person utilises in the competent completion of a function. There is, therefore, a practical need to recognise the importance of knowledge, skills and application which may not be directly observable, but which are none the less crucial to the task or occupation an individual is engaged in. This has implications for the utilisation of appropriate methods in both instruction and assessment at all levels. It is particularly important in the context of a CBT system which encompasses all classification levels from operative to para-professional.

While performance is to be the basic criterion for assessment, it is essential that competence be assessed in a holistic way, covering knowledge and application as well as directly observable skills.

Important and sensitive industrial relations isses with regard to assessment have emerged in the award restructuring processes, and consultations conducted to date on implementing a CBT system point to assessment/certification as a particularly important and sensitive issue.

The industrial parties are clearly still formulating their views on assessment processes. However, certain predictable criteria are beginning to emerge as fundamental requirements of a competency-based assessment and certification system. Assessment processes will have to be free from bias, cost-effective, create minimum disruption in the workplace, provide quality assurance and ongoing validation of skills, and they must be organised in such a way as to avoid the fragmentation of skills or qualifications.

Assessment Processes, Methods and Resources

A CBT system has competence as its central assessment criterion and will therefore require new and innovative testing processes and arrangements. The assessment capabilities and infrastructures of all relevant parties will need to be developed to meet this need. Assessments will be undertaken on either a progressive or terminal basis, or involve a mix of both approaches. Whichever approach is taken, arrangements will need to be made to ensure that individuals outside the training system have direct access to assessment processes, and therefore certification, to enable them to demonstrate competencies attained elsewhere.

In regard to assessment methodologies, demonstrated performance to specified competence standards either in the workplace or in a simulated work environment will provide the centre-piece of CBT assessment. There must, however, be some flexibility in the range of assessment instruments and approaches available to assessors, particularly with regard to recognition of prior learning and in the less behaviourial occupations. Assessment in some contexts may need to incorporate interviews, portfolios, employer statements, oral tests or written assignments. The focus of these approaches must none the less be agreed competence standards.

National standards will also provide the necessary basis for achieving consistent quality of assessment and a consistent national format for certification and record-keeping processes. This consistency is required in order to meet the needs of labour mobility and credit transfer between programs/courses of training. The NTB provides the most appropriate organisational framework to sponsor that consistency and monitor it on an ongoing basis.

The development of assessment instruments, including computer-aided testing packages, is potentially a resource-intensive activity. As with curriculum materials, the development of assessment instruments will need to be approached in a co-operative and co-ordinated way. Scope exists for exchange and sale of these resources within and between TAFE systems, private provider networks and industry, perhaps through the establishment of an assessment instruments bank.

Definition of assessment criteria should be seen as part of the task of defining standards that are to be promulgated by the National Training Board. Assessment criteria enable the competence of an individual to be measured against specified standards. Assessment criteria will be needed because it is unlikely that, in the short- to medium-term, the standards developed by industry and ratified by the NTB will be detailed or precise enough for the purpose of assessment.

Competence Assessors

Any testing option will need competence assessors. Agreed processes will be required to ensure that assessors are themselves competent, both in the competencies they assess and the processes of assessment, and that quality and consistency of assessments can be relied upon. There is already a large pool of potential assessors in TAFE, industry, State and Territory training authorities, private training establishments and other environments, and appropriate processes for accessing their skills will be needed. It is likely that consideration will have to be given to the introduction of nationally agreed assessment criteria and, possibly, of registration mechanisms for assessors, which may include some competence test of its own.

Along with these recognition mechanisms, special training programs for assessors would also have to be established. As with trainers, the objective would be to encourage quality of assessors through skill formation, increasing their status and rewarding their efforts.

Certification

Certification processes are also subject to industrial relations sensitivities. There is a need to reach agreement on the unit of certification; that is, whether formal certification should occur on successful completion of a module or a complete program of training/qualification. There is also concern on the same grounds about the recording mechanism. While formal certification will normally refer to completion of whole programs of training, certification arrangements must allow for the recording of attainment of competence in all modules of training as they occur, including elective and post-basic modules. This will be necessary for fair and efficient credit transfer. It is also important that certification arrangements be cost-effective, with a minimum of bureaucratic handling.

Recognition of Prior Learning and Equity

The recognition of prior learning (RPL) has also emerged as an important issue in assessment and certification. It is important that those outside the workforce, or those who are in jobs but do not have access to formal training programs receive recognition for skills they have acquired informally on-the-job, or in other environments such as the home or community work. This is a particularly crucial issue for women and disadvantaged groups, who have had less access to structured training and currently have a low share of vocational qualifications.

Similarly, there is concern to avoid the situation where an individual who already has skills is required to undertake a costly training program simply in order to have access to the assessment and recognition mechanism. In such cases, not only are the community and the individual expending resources unnecessarily, but the person seeking certification is missing out on access to a career path and potentially higher wages for the period of unnecessary training.

The ratification of national competence standards and the emphasis on outcomes in the training and industrial systems will provide the necessary underpinning for recognition of prior, informal learning. However, to realise the potential benefit to individuals, industry and the community, of this shift in emphasis, any competence assessment and certification system will have to give direct access to assessment and certification procedures for those outside programs of training.

To further ensure maximum access and equity in assessment and certification, mechanisms must be developed to ensure objective processes and thereby avoid subtle bias or indirect discrimination. One such arrangement for safeguarding access is the right of appeal. Another basic requirement will be the use of assessment as a diagnostic as well as certification tool, linking it to bridging and remedial courses, thereby maximising the achievement of successful outcomes without compromising standards.

- *Funding*

The implementation of a competency-based training system in Australia has significant resource implications. These are difficult to precisely identify or quantify at the present time, and will ultimately depend on the pace at which change is introduced or required, and on the ultimate nature of arrangements for integrated training delivery and assessment processes.

Governments are already providing additional resources, often in partnership with industry, for underwriting the development process, for such activities as skills audits, curriculum development, the operation of the National Training Board and industry advisory bodies, CBT pilot projects and the expansion of the industry training infrastructure.

In addition to the resource implications of CBT implementation, TAFE and other providers are facing substantial demands for increased training provision arising from award restructuring and the increasing need of industry for skilled workers.

As a means of ensuring that industry provides at least a minimum contribution to the costs of training, the Commonwealth introduced the Training Guarantee with effect from 1 July 1990. The Training Guarantee requires a greater training effort from employers who are not currently investing the equivalent of 1% of their payroll in training, without imposing any additional burden on those who are. It is unlikely however, that the additional training effort generated by this measure will be sufficient to meet the demands either of award restructuring, or the need for a more highly skilled workforce.

TAFE will clearly be unable to meet the increased demands being made of it within existing resource arrangements. A recent discussion paper released by the State Training Board of Victoria **Reform of the Apprenticeship System** indicated that TAFE in that State is likely only to be able to meet two-thirds of the training requirements for apprentices in the 1990s. Furthermore, the COSTAC consultant's report, **Costs of Award Restructuring** indicated that additional training costs for TAFE were likely to increase in the order of 40% or more per year.

Subsequent to these reports, Ministers have commissioned a review to be undertaken by a committee chaired by Mr Ivan Deveson (of Nissan Australia) to examine initial and continuing training costs in TAFE and options for securing additional resources, given the distribution of benefits from training; the need for equity of access to training; the balance of provision between public and private providers; skill assessment requirements; and inter-sectoral links with the vocational and educational training system. The review is to be completed by September 1990 and the report and comments on it are to be presented to the Special Ministers meeting on 2 November 1990. The report will have important implications for the timing and method of implementation of competency-based training.

Addressing the resource implications for improving and expanding Australia's vocational education and training system is a complex matter and will require a wide ranging examination of the efficiency and effectiveness of the present distribution of resources and of the relative costs shares being borne by the community, industry and individuals.

Governments will continue their present high levels of commitment of resources to vocational education and training. In the light of the fiscal constraints which they are facing, however, it is unlikely that they will be able to meet the full costs of the expansion necessary, or of measures such as competency-based training, which are needed to improve the skills of the workforce.

Responding to this situation however will not simply be a matter of whether governments, industry or individuals should increase their present levels of contribution. Consideration will need to be given to the way in which resources are presently distributed and utilised; to the development of a private training market and more extensive enterprise-based training; to refocussing the priorities in present funding arrangements; and to different and more cost-effective delivery methodologies.

A further major factor impinging on the appropriateness and proportional distribution of the costs of training is that of training wages. The outcomes of negotiations presently underway in the award restructuring process on this matter will have a substantial influence on the future provision of resources, and on the capacity of employers and/or individuals to increase their participation in, and contribution to training.

Conclusion

This paper sets out some discussion of the major issues canvassed in the Working Party's Report.

Recommendations are being developed in consultation with the industrial parties, and will be incorporated in the final Report to be provided to Ministers on 2 November.

APPENDIX 1

Principles of a Competency-Based Training System

Scope

1. A competency-based training system will encompass all occupational classifications and reflect work organisations and job designs in conjunction with award restructuring.

2. Beyond the initial mapping from old classifications to new classifications, achievement of skill levels will be on the basis of assessed competency.

3. A competency-based training system will encompass skill formation both on-the-job and off-the-job, with the training authorities in the States and Territories exercising their legislative responsibility to ensure quality of training. This will involve the training authorities in co-ordinating the allocation of training responsibilities in consultation with industry and training providers.

Nature

4. A competency-based training system will comprise two components:

    - instruction which is characterised by the precise definition of skills to be achieved to specified standards and under specified conditions, which become the performance objectives for the skill formation process; and

    - certification which is based on an assessment of competency, related to both the on-the-job and off-the-job components of skill formation, with performance as the basic criterion.

5. Procedures (developed and agreed though tripartite processes) to assess performance against specified standards which take account of both on-the-job (formal and informal) and off-the-job skill formation, are essential. However, a number of possible approaches to the demonstration or assessment of competency can be taken, including continuous assessment, a final assessment and observed performance on-the-job.

6. A competency-based training system will involve:

    - establishing the range of work and appropriate competency standards within each occupational classification;

    - training programs (on and off-the-job) to meet those standards;

    - the accreditation of training programs and the provision of training;

- the awarding of credits to enable individuals to move between different training systems; and

- mechanisms for assessing the skills of individuals against the agreed competency standards and the certification of skills possessed.

7. Competency-based training will support the building of the skill profiles of individual workers, and thereby combat the dilution of skills.

8. Standards in relation to knowledge, skills and application can be expressed in both quantitative and qualitative terms. The approach will vary and will be determined by industry.

9. Competency-based training will be compatible with the identification of nominal training periods.

10. Occupational health and safety issues will be identified and addressed in the development of a competency-based training system.

11. Equal employment opportunity will be integral to the conceptualisation and implementation of competency-based training. Discriminatory barriers based on gender, age, social or educational background are inconsistent with competency-based training.

Implementation and Administration

12. Primary responsibility for defining skills and competence standards will lie with industry parties.

13. In the development and implementation of a competency-based training system agreed tripartite consultative mechanisms will be crucial.

14. Co-ordination of award, legislative and administrative changes will be needed to provide the basis for appropriate levels of national consistency.

15. Commonwealth and State/Territory training authorities will adopt a consistent approach to the implementation of a system which is agreed by all parties. In this regard a major role will exist for the National Training Board (NTB) through its co-ordination of the development of standards by State and Territory training authorities, tripartite industry training bodies and/or award-based bodies.

16. There will be roles for a range of interested parties (including industry bodies, group training schemes and individual employers) in the administration of a competency-based training system, including assessment processes, under the supervision of State and Territory training authorities.

17. The establishment of processes for recording skills acquired throughout working life will be necessary, for example a 'skill passport' system.

18. Priority will be given to the early development, and where necessary the reorientation, of skills required by State and Territory training authorities, TAFE and industry-based personnel in developing, delivering and managing competency-based training.

19. Additional costs will principally be met by industry, but with some seeding and on-going funding from government. Implementation, within the framework agreed by the industrial parties, will be a matter for each government to decide within the limits of available resources and according to government priorities.

20. The apprenticeship indenture will become a contract of training for all new apprentices commencing training after 31 December 1991.

21. Implementation will occur incrementally, but should proceed as quickly as possible with substantial progress by 1993 towards an overall competency-based training system based on standards endorsed by the National Training Board.

SUMMARY OF WORKSHOP DISCUSSIONS FOLLOWING MICHAEL MURPHY'S PAPER: COMPETENCY-BASED TRAINING: COSTAC WORKING PARTY REPORT

The two discussion groups following the paper on competency-based training focused briefly on the characteristics of a successful competency-based training program. These were believed to be: flexible entry/exit points, self-paced learning, computer-based learning and a modularised curriculum. The groups emphasised that the key to a successful program was teaching to a set of standards with qualifications achieved in the attainment of a set of standards.

Much more attention was given by both discussion groups to the implications of the implementation of a CBT program. The following lists these implications as perceived by the groups as well as some of the related issues:

- resource implications. CBT programs are very resource intensive; will the revenue from the Training Guarantee be sufficient? Will TAFE have to charge fees?

- staff development and trainer-training implications. The introduction of CBT will have implications for teacher education as well as ongoing staff development. Industry trainers need training on CBT assessment in the workplace. TAFE has a role here.

- attitude change. TAFE teachers because of the nature of CBT - (its student-centred approach) would have to come to terms with the notion of becoming resource people. With the introduction of CBT programs students' attitude will also need to change: they now have to take on responsibility for their learning.

- curriculum development implications. Whole new curricula need to be developed: TAFE will lose credibility if old curricula are merely repackaged. Standards must be set before curricula are developed. Some teachers may feel apprehensive if they have to use nationally developed curricula: they have lost their feeling of ownership of teaching material. Perhaps secondary school curricula should also be reviewed with a view to introducing some competency-based elements.

- CBT assessment. A holistic approach which takes into account both on the job and off the job assessment is crucial. One group that the ideal CBT assessment would involve a tripartite approach - which would be one step removed from training deliverers and employers. One group expressed concern over the nature of CBT assessment: it leaves no room for excellence. Assessment and measurement of manual and physical tasks is easier than assessment of personal skills. This is a problem area which needs careful attention. Also needing attention is the balance of assessment versus actual learning time.

THE RECOGNITION OF PRIOR LEARNING

Alan Brown
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The current climate of increased training emphasis and the specification of learning and assessment in competency terms, immediately draws forward the issue of how the accumulated skills of individuals may be recognised.

No longer can we maintain the old concept of teachers as the gate-keepers of learning and, classrooms as the only environment in which skills and knowledge are transferred. It was never the case, but it is more evident now that formal education is not the major provider of lifelong learning.

All of us, if we care to reflect for a brief moment, have a wealth of knowledge which often does not see the light of day. Much of this learning has occurred outside the formal processes; in our work environment and in the life experiences that we have encountered.

It is the intention of this paper to look briefly at the range of processes and issues of prior learning recognition; with particular reference to a project which was undertaken in Victoria in 1989 and which continues in 1990.

The areas that will be examined are:

- The context in which prior learning assessment is developing;
- Principles and processes in the recognition of prior learning;
- International developments in prior learning recognition; and,
- Implications and issues resulting from the research and case study work.

Bernadette Delaney, Assistant Director, Training and Development, Broadmeadows College of TAFE, will present an insight into the outcomes of project case study work and current developments within the Victorian State Training System. Reference will be made to the two case study examples attached to the paper.

The Context in Which Prior Learning Assessment is Developing

Australia, like many other countries in the industrialised world, is confronting a number of key issues. Of these, there are several which directly impact on the need to recognise the accrued skills and knowledge of individuals. They are:

- Our population is aging, with consequent effects on the make-up of the workforce and the educational clientele.
- There is a need to reskill or update the workforce to develop smarter and,

therefore, more efficient methods of operating. This closely links with the award restructuring process presently being implemented.

- The establishment of the National Training Board has focused attention on the setting of national skill standards, with the underlying implication of their relationship to the individual.

All of these highlight the requirement for a strategy which considers the existing expertise of individuals, and which translates that, in some way, into an acceptance that this expertise has some worth.

In 1989, a project was undertaken to consider how prior learning may be assessed. It linked the Victorian Education Foundation, Ford Australia, Broadmeadows College of TAFE and the Gordon Technical College together to develop a practical process that facilitated the articulation of training and experience with formal courses.

The key goal of the project was to institute a generally applicable model which established procedures and criteria to recognise:

- formal industry training;
- work experience; and
- life experience.

The term, Recognition of Prior Learning (RPL) emerged as the project developed. It is defined as:

> The acknowledgement of skills and knowledge obtained through formal training (industry and education), work experience and/or life experience.

Your attention is drawn to a list of terms which were used in the Project. These are attached at the end of the paper.

Much has occurred since the commencement of the Project, especially the level of interest. Both the education and industry sectors have identified the merit of valuing prior learning in the current climate.

From that 12 months of development, and the 1990 work that has been undertaken, it is worth exploring the underlying principles, processes and issues that have emerged.

Principles and Processes in the Recognition of Prior Learning

- *Principles*

Regardless of the system that is devised, there are some fundamental principles which must be reflected within the procedural or implementation framework;

Commitment - belief in the worth of prior learning recognition;

Access - mechanisms and practices which enable all potential applicants to gain entry to the process;

Fairness - processes which are verifiable, credible and just;

Openness - structures and strategies which assist potential applicants and those involved in implementation.

For example, several of these principles impact on decisions about assessment procedures associated with the acceptance of alternative types of evidence and, the participation of industry and education personnel in the assessment process.

In the definition of prior learning, the parameters applied are quite broad - 'Skills and knowledge obtained through formal training (industry and education), work experience and/or life experience'. The main focus of RPL is the learning outcome of these experiences; not how, when or where the learning occurred. By concentrating on outcomes and not the experience itself, the distinction between formal and informal training becomes unnecessary.

Ultimately, the purpose of RPL is to identify and assess the accumulated learning experiences of an individual in relation to clearly defined vocational outcomes. The vocational outcomes form the benchmark against which prior learning is valued. For education, these would be course or unit outcomes. For industry, they could be skill classifications or competency standards.

- *RPL Model*

To achieve the orderly assessment of these relationships, a framework or structure is necessary. The RPL Project established a model which maximises the use of common methodologies, regardless of the application.

It consists of 3 phases - Request, Assessment and Review. In each phase, there exists a number of discrete steps.

Phase 1, Request has, as its primary aim, access to the prior learning assessment process for potential applicants. It provides the applicant with the opportunity to begin considering their prior experiences and the consequent relationship to vocational outcomes.

Phase 2, Assessment addresses those claims for prior learning assessment which are clear cut and can be easily or quickly resolved. The original application is enhanced by the use of an interview procedure that allows discussion and interaction in order to thoroughly explore the possibilities.

Phase 3, Review tackles the more difficult areas that require assessment and decision. It concentrates only on the 'maybe's' or unresolved areas, arriving at a decision by using an appropriate assessment technique selected from the full range of available methods.

Initially, a significant amount of work/assessment may be required at the Phase 3 level; but with establishment of skill records, credit banks and industry specific best practices, the emphasis should shift to Phase 2.

Decisions on claims are restricted to only 3 possible outcomes:

- grant recognition
- deny recognition
- further assessment required

In reaching a decision, a range of general criteria are applied to the decision-making process, the selection being dependent on the nature of the learning which is claimed.

Examples of criteria that may be used are:

AUTHENTICITY - The applicant has actually completed the learning outcome that is being claimed.

CURRENCY - The learning outcome is still valid and performable.

QUALITY - The learning has reached the acceptable level.

RELEVANCE - The learning is applicable to the area claimed.

TRANSFERABILITY - The learning outcome can be applied outside the specific context in which it was learned.

VALIDITY - A sound connection can be made between the learning outcome and the vocational outcome.

A variety of evidence can be used to support the claims, ranging from observations in the workplace, skill tests to reports and letters of validation.

International Developments in Prior Learning Recognition

It is interesting to note the difference in the approach that has been adopted overseas in this area, and the techniques that are applied.

The major emphasis of the Victorian RPL Project is in the use of a structured interview approach to ensure access for all potential applicants. In both Britain and the United States on the other hand, a portfolio technique has been extensively developed.

The other significant variation is in the approach to decision-making. The overseas trend is to consider all learning outcome decisions together, while the RPL Project provides for staged deliberations. This allows the assessment effort to be concentrated where needed and at the same time provides the applicant with a quick response to the initial claims.

British achievements are of particular interest to the work being undertaken in Australia. The function of the National Council for Vocational Qualifications is similar to the role of the new National Training Board. Consequently, there may be lessons and strategies of value for our developments.

The use of portfolios, within the further education context, in Scotland and England has taken the original strong reliance on written requirements to a more flexible level of application. The primary use of portfolio assessment has mainly been in the higher education sector. This is also the case in the United States. However, projects in Britain since 1987-88 have focused significantly on the 'TAFE' area.

The recognition of prior learning or assessment/accreditation of prior learning (APL), as it is known in Britain, is used in two distinct ways. The first is in a formal context which results mainly in entry and credit to courses. The second is a more informal approach which supports the development of personal profiles, self-awareness and return to study/employment support.

There are a number of interesting projects in progress throughout 1990 which should provide useful information for application in Australia.

Implications and Issues

The introduction of any form of prior learning assessment has a major impact on access to education, training delivery and industry-based skill recognition.

For the vocational education sector, there are a number of issues that must be addressed if the participants in prior learning recognition are to gain the full benefit.

The RPL model will require new practices, particularly in the development, delivery and assessment of training.

- Formal course structures and delivery modes must be sufficiently flexible to accommodate individuals who receive recognition for prior learning, and no longer need to study all components of a course.
- Course documentation must clearly identify the vocational learning outcomes. When assessing prior learning recognition, the learning outcome, not the experience, is related to the course requirements.
- Any validation of skills and knowledge claims must have some basis in identifiable and assessable outcomes.
- Entry requirements for formal education courses need to be closely monitored. Adults seeking access to courses may be able to handle successfully the vocational outcomes and yet not meet the course pre-requisites.

- The result of an individual prior learning assessment may lead to the actual equivalence of full course certification. The implications of this outcome, and any arbitrary limitation on receipt of credits, must be addressed by the credentialling authorities.

- Where a number of company or industry-based applicants are involved, it would be useful to establish standard recognition agreements for in-house, supplier/vendor and commercial training programmes. This could be monitored, recorded and publicised through a credit bank arrangement.

- A range of strategies can be applied to determine achievement of defined standards which do not compel the applicant to demonstrate the skill or knowledge within a formal education environment. This requires the education sector to accept the concept of alternative externally-based assessment methods.

- A previously gained qualification, or set of skills, does not automatically indicate relevant competence, particularly in rapidly changing technology areas.

- The ability to make assessments at points other than initial course entry produces significant possibilities, particularly for maximising the levels of recognition.

Summary

In drawing together the themes of this paper, it must be remembered that there is still much to do. The importance of prior learning recognition cannot be over-stressed. Its acceptance as a legitimate form of assessment and credentialling by the key awarding bodies in the United Kingdom serves to emphasise that importance. It will be necessary, in Australia, to refine our techniques, embed the concept and process within education and industry and explore its other potential uses.

Possibly the most important element in the acceptance and implementation of RPL is the need for an understanding of adult learning principles and practices. It is with adults that we will have to focus more of our attention in the future, if we are not doing so already.

Perhaps the most pertinent illustration of the impact that RPL has on education is a quote from Norman Evans, Director of the Learning from Experience Trust in Britain. He states in **The Assessment of Prior Experiential Learning and Higher Education**, January 1989, the following.

> The assessment of prior experiential learning (APEL) challenges higher education at all points on the compass . . . APEL presents to higher education, in a relatively unfamiliar form, many of the issues which it debates continually: admissions characteristics of the student body; course content and structure; modes of learning and teaching methods; assessment procedures and the nature of evidence; institutional stance

> and purpose. APEL raises all these issues. There is nothing new in any of them for any academic higher education institution. **It is just that APEL tends to raise them all simultaneously.**

These words apply equally to all areas of vocational education.

Biography

Helen G. is a senior cost analyst, responsible for a group of 6 cost analysts, in the estimating department of a large multi-national manufacturing company. She left school after Year 10, and has worked with her present employer since then, 19.5 years.

Initially Helen was employed as a general clerical assistant, then later as an accounts clerk in the finance section where she has remained for 16 years. She advanced steadily, following a career path from accounts clerk, to book-keeper, accounting systems analyst, supervisor in the accounts payable section, to her present position.

Throughout this period, Helen attended a number of in-house courses conducted by the company. These consisted of: Report Writing; Problem-solving; Supervisors Course; Computer Course and a Middle Management Course.

As head of a key group in the department, she participates on a management executive committee of the finance section. This group functions as a team and is responsible to the Director of Finance for the efficient management of the department and resources within the section.

A member of a prominent amateur theatrical company for many years, Helen has gained considerable experience across a wide range of activities including, set and costume design; lighting and sound; acting and directing. Three years ago, she was elected manager of the company, having previously held a number of committee positions including secretary/treasurer, which she undertook for four years.

Subject Focus

To maximise her future career options, Helen is interested in undertaking formal study in business management, or a similar course. After initial discussion with a college counsellor, she is seeking recognition of her prior learning in the Supervision Certificate for Unit 1, Basic Supervision.

This unit covers the basic concepts and techniques required by a supervisor and includes: organisation and leadership models; delegation; team building; problem-solving; performance appraisal; time and stress management.

Entry to the course is available to those holding a supervisory position in industry. The syllabus, written in objective format, was given to Helen to assist her in the preparation for her interview.

Helen submitted a detailed account of her experience and present duties, supported by a letter of validation from her supervisor. The in-house course syllabi also supplied were in the form of topics covered.

Biography

Michael L. is 45 years of age. He is presently employed as the operations supervisor of a large regional shopping centre. In this capacity, he is responsible for all the maintenance and repair work undertaken, mainly by outside contractors. This covers a wide variety of trades across the fields of mechanical and electrical engineering, building and construction.

After completing an electrical mechanic apprenticeship, Michael gained experience in domestic electrical installation and light industrial electrical repairs. As electrical foreman in the shopping centre, he had extensive experience with air-conditioning, lighting and the calibration of controls.

The increasing use of electronic controls led Michael to study Programmable Logic Controllers 1. He is currently studying programmable Logic Controllers 2. Michael has also enrolled for the Certificate in Basic Electronics. It was at this time he was invited to participate in the RPL process with a view to gaining some credit for his experience.

Subject Focus

Upon examination of the detailed Basic Electronics syllabus, Michael sought credit for the following:

- Units 1 to 4 inclusive, Unit 13 and Unit 16 on the grounds that course documentation indicates that successful completion of the Electrical Mechanic apprenticeship entitles automatic recognition of those units. (Unit 16 is a communication skills module);
- Unit 14, Basic Test Equipment. This unit focuses on the use of electrical measuring equipment, e.g. digital and analogue meter reading of resistance, AC and DC voltage and current.

In the course of the RPL interview, Michael frequently underestimated his skills and knowledge related to the installation, maintenance and calibration of various timing and control devices. This was indicated by his ability to supply correct answers to questions drawn from Unit 8, Integrated Circuit Timing and Control Devices.

Terminology Used in the Project

Accreditation
Recognition and acceptance of the academic standards of a course or programme of study by an outside accrediting agency, association or body. Accreditation relates to approval.

Accredited Course
A program of study, which has been recognised or accepted by an accrediting agency as meeting the standards of the award to which it leads, and that the methods adopted in delivery are likely to achieve the specified outcomes.

Advanced Standing
An arrangement to formalise credits into a course prior to the commencement of that course.

Articulation
The linking of different courses so that a person can move from one to another without unnecessarily repeating previously learned material. For the project, it includes those skills and experiences that are gained outside a formal course environment, but which can be assessed for purposes of formal recognition. Articulation relates to access.

Competency
Refers to the standards/levels at which skills or tasks are performed.

Credit
The value given within a course for relevant work or previous study, without the requirement to take alternative studies. The word exemption is also used to describe this process. Unspecified credit; allows credit to occur without reference to content-specific objectives, but within the broad education objectives of the subject.

Credit Bank
A centralised record of credit approvals which identify precedents and allow cross-referencing to occur where appropriate.

Criteria
The elements or measures which should be used to judge the worth of that accumulated knowledge and experience. These measures may vary, depending on the skills, knowledge or attitude to be assessed.

Formal Industry Training
The training of employees in industry where the roles and responsibilities of trainers and learners can be defined. Normally it implies a structure, which provides a continuing progression, through a unit or course of study specifically applicable to the needs of an individual company. It may include both on- and off-the-job training components. In many companies, this would be classified as formal off-the-job training and defined on-the-job training.

Industry Course (In-House)
Education/training programme carried out for, or within industry, and specifically applicable to the needs of an individual company, group of companies or an industry. It may include both on and off-the-job training components.

Informal Industry Training
The training of employees, in industry, where the trainer may be any person

who is able to impart the necessary skills and knowledge at a time and place relevant to the immediate needs of the learner. In many companies, this would be classified as undefined on-the-job experience.

Life Experience
The set of experiences which a person accumulates by interaction within the prevailing social environment. Normally it implies development of a set of skills which assist this interaction; such as occupational, communication, problem-solving, decision-making, social and character skills. For the Project, it is those skills, knowledge and attitudes which can be translated into a direct relationship with industry and vocational training.

Model
This can be defined as a style of structure or design to be followed. In project terms, the word model encompasses the various components of structure, detail and principle which together provide guidance for recognising the worth of training and experience.

Recognition of Prior Learning (RPL)
The acknowledgment of skills and knowledge obtained through formal training (industry and education), work experience and/or life experience.

Work Experience
Work activities undertaken in the workplace, where acquisition of skills, knowledge and attitudes are related to tasks, processes and the work environment. It may include informal industry training and/or self-directed learning by doing.

SUMMARY OF WORKSHOP DISCUSSION FOLLOWING ALAN BROWN'S PAPER: THE RECOGNITION OF PRIOR LEARNING

The discussion generated by this paper provoked similar responses to those from the paper on CBT and focused on both characteristics of the process of RPL and the implications for its implementation. The latter topic relating to the implementation of RPL focused on the following issues:

- who pays for the process? Should governments, the client or employers? Equity issues need to be taken into account in this context.

- what impact does RPL have on course length and delivery? A difficulty exists in equating time spent in a course with prior leaning. In addition RPL relies upon modular courses and self-paced delivery: how can it be accommodated in traditional teaching?

- in small training centres or TAFE colleges will students wanting RPL be disadvantaged by having fewer module choices? Possible strategies to avoid this include busing students to specialised colleges or establishing interactive video conferencing.

- the introduction of RPL requires agreement between industry and education providers. Furthermore, legislation may be required for significant changes to be made.

- RPL must be introduced gradually because industry believes in examinations and qualifications. The value of RPL must be publicised. Similarly there is a danger of educators devaluing job experience.

ASSESSMENT IN THE WORKPLACE: FACTS AND FALLACIES

Russell Docking
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WA Department of Productivity and Labour Relations

Award restructuring, new performance management systems and an increasing emphasis on workplace-based training are all raising new concerns about performance standards and their assessment in the workplace. High quality as well as reputable on-the-job assessment is crucial to the success of each of these developments.

Workplace training and assessment have traditionally been viewed with some suspicion and scepticism, particularly by those engaged in the provision of formal, off-the-job training. While such a view might well be justified by the experience of the past, the problems of on-the-job assessment should not be regarded as either immutable or inevitable. It is ironic to observe that while discounting the workplace as a training and assessment environment, off-the-job providers go to great lengths to prove that their training replicates the workplace and that their assessments are a valid reflection of workplace performance!

Valid, high quality on-the-job or workplace assessment will not only enable us to cope with new reforms in industry, but it will also enable us to respond fully to the requirement that the content of training and assessment must be industry-driven, not qualifications-driven. New developments in competency-based or skills-based training and assessment now provide the means to achieve high standards in the workplace.

On-the-job assessment can be conducted by visiting 'external' examiners, by simulation tests on TAFE sites, or by the supervisor in the workplace. The first two approaches utilise an examiner unfamiliar with the candidate or the workplace, and as a consequence suffer from intrinsic shortcomings that require a substantial investment of time, money and resources to overcome.

These problems include:

- the difficulty of simulating a 'normal' working environment for assessment;
- the difficulty of covering an adequate range of skills;
- the need to observe long-term skills and major integrated activities;
- the need for repeated access to candidates for the assessment of complex skills;
- the need to become fully familiar with the working/training

environment of the candidate;

- the need to observe activities 'after hours';
- the need to observe progress and to provide reassessments; and
- the risk of assessments being unattended by the candidate.

Costs associated with the use of external examiners include a salary (which needs to be sufficient to attract assessors with wide-ranging and current skills), travel, materials and an organisational infrastructure to manage the assessment visit schedule. Such costs are multiplied if the problems listed above are to be adequately addressed.

Visiting assessors can provide valid and reliable assessments in the workplace, but only at prohibitive cost and substantial workplace disruption. For this reason, maximum use should be made of workplace assessors (supervisors), with visiting assessors utilised only where the workplace assessments are shown to be inadequate, or as monitors and consultants to workplace assessors.

The use of the workplace supervisor as an assessor provides access to extensive skill coverage, is relatively low cost and utilises natural work situations. It is not, however, without its problems, such as:

Concerns about workplace assessors:

- lack of assessment expertise
- bias and error in judgement
- dishonesty in reporting

Concerns about assessments:

- excessive time and cost
- harmful influences on trainer and employee
- variability of standards

Each of these concerns must be addressed, whether they are well founded or not This paper will argue that, unlike the difficulties arising from the use of external examiners, these problems can be dealt with in a cost-effective way.

Lack of Assessment Expertise

Unfortunately, there is a widespread misconception that assessment is a highly specialised skill requiring formal training in test design and statistics, and the use of formal examinations by independent examiners.

This intimidates those assigned the responsibility of assessment, and often results in their assessments being undervalued by others. This misconception arises from the complexities of testing faced by teachers in formal training environments (such as classrooms or lecture theatres) that are not a feature of on-the-job assessment.

Classroom teachers are required to teach broadly defined subject matter and skills which they probably use rarely themselves, to a large number of relatively unknown students, with very little assessment time and a requirement that all the students be assigned a mark on a single scale perhaps conforming to a preset distribution. This leads to the need for expertise in sophisticated content sampling methods, bulk testing methods (written tests), complicated test analysis and improvement methods and statistical analysis. Such expertise does require special training.

By contrast, workplace trainers/assessors deal with the teaching of content and skills that they use themselves to a smaller number of well known trainees. They have the evidence from the whole of worktime on which to base a judgement, and are not constrained by the need to give a comparative mark or a grade. In stark contrast to the complexities faced by the teacher, the workplace assessor is asked to report on whether or not an individual has demonstrated specified skills in the performance of their normal duties. The critical expertise required of the workplace assessor is therefore the possession of the skills required to be assessed, and an ability to recognise those skills in everyday performance.

Provided that workplace trainers are competent in the skills to be taught and assessed, they will be able to set appropriate assessment tasks and will be able to make use of their personal observations of the trainee's performance to document a trainee's progress.

Bias and Error in Judgement

While most bias and error arise from the way skills are selected for assessment, they also stem from the choice of tasks assigned to demonstrate skill, from the standards applied to observed performance and from selective recall of observed performance.

Most of these problems arise when there is no clear statement of skill requirements and performance levels, or when impressionistic and holistic methods of assessment are used, and where structured recording systems are not provided.

Statements of skill requirements need to be expressed in words that convey a uniform meaning to employers, trainers and trainees. For many this means the rigid adherence to some artificial standard formula (such as 'behaviourial' criteria), but such an approach is unnecessarily cumbersome. An alternative approach, now used with some success in a number of industry areas, involves industry representatives defining competencies or skills in their own words, then testing the wording in the field to identify ambiguity or confusion. Such an approach will, on occasion, lead to very highly specified skill definitions (including behaviour, conditions and performance criteria), but in most cases there is a common understanding of the skill, and such specificity is unwarranted.

Provided that the workplace trainer makes use of clearly stated skill requirements (in terms of required performance) and systematic ways of directly observing and recording performance, unbiased and valid assessments of performance can be made.

In structured training programs, such as Traineeships or Apprenticeships, the skill requirements are set by appropriate industry groups, and recording and reporting procedures are prescribed.

Dishonesty in Reporting

There may be circumstances where a supervisor or employer may be tempted to falsify records of performance, either to upgrade or downgrade reported skill levels. Upgrading can occur in assessing a relative or to 'hurry the trainee on'; downgrading may be used as a disciplinary action, or to keep salary levels low.

An independent monitoring system to assess (and perhaps accredit) the assessors, coupled with advisory and support services will provide a means of discouraging dishonesty. It is also essential that trainees have access to their records, and that they are able to countersign final records or reports from a module of training and have the right to appeal against an assessment they feel is incorrect.

Provided that the trainee has access to the records and that there is an independent monitoring system that can validate the assessments of targeted and randomly selected trainers or on appeal, dishonesty can be virtually eliminated.

Excessive Time and Cost

Assessment is seen as a time-consuming interruption to the training process and as a costly constraint on the productivity of the trainee and supervisor. However, there is clear evidence that the close monitoring of trainee progress can lead to significant increases in learning, efficiency and productivity. Furthermore, the process of assessing the trainee on-the-job encourages them to develop self-assessment skills and self-management of their training, reducing the level of 'snoopervision' required of the trainer.

Employers' fears of excessive assessment costs can be allayed if they are asked to consider the cost of not assessing the work of their trainees and other staff. As quality control becomes recognised more and more as a integral element of the work process, employers are less likely to regard assessment as an imposition. Much of their concern arises from their expectations of having to establish special systems with special staff and resources to conduct assessments, rather than drawing upon their existing resources and the workplace performance of their trainees for evidence.

Provided that assessment is integrated with the normal day-to-day activities of the workplace, the benefits in increased productivity will be far greater than the costs of assessment.

Harmful Influences on Trainer and Trainee

Assessment has been the target of considerable criticism relating to its effects on teacher and learner. Prominent are concerns about the potential abuse of power by the trainer, excessive trainee anxiety, restriction in content and learning strategies, fixed pace progress, the teacher/tester role conflict, and the negative motivational effects of examinations.

Paradoxically, some regard these 'qualities' of examinations as beneficial, driving the trainee to perform and conform through the fear of failure. Such 'motivation' is very short lived, and is likely to lead to a decline in interest beyond initial training.

Workplace assessment can serve to motivate and direct trainees, but care must be taken to ensure that it is not at the expense of the learner or the trainer. In particular, the essentially personal nature of learning and assessment must be respected. Learning requires an acceptance of the need to learn (an admission of inadequacy), and assessment is always accompanied by the risk of failure (the demonstration of inadequacy) and should not be treated as a public event. Workplace assessment offers the opportunity to utilise natural rewards, rather than the artificial rewards required in the formal training environment (such as grades or ranks).

Provided that assessments are open and verifiable, are based on publicly recognised skills lists, are responsive to individual needs and provide frequent feedback, and provided that records fully reflect trainee achievement, they will be a constructive and motivating force in the training and learning process, rather than a detrimental and threatening one.

Variability of Standards of Certification

The use of a large number of assessors in a wide variety of work environments raises the concern about uniformity of standards of certification. As discussed above, variations in assessment can be avoided by clear performance specifications, but there remains the problem of the overall judgement for certification. This is of particular concern for accreditation and mobility within the industry and across industry areas. In structured training programs, appropriate industry groups should determine the pattern(s) of skills required for certification, indicating what skills are essential, what level of skill in each task area is required, and what overall level of performance is needed. The publication of these standards not only sets clear targets for trainees, but also defines and guarantees the standing of the certificate.

Data which reports trainee performance in relation to skills can be drawn from many different sources (workplace, college, other assessments) but the decision to award a certificate should be based on the objective and unequivocal application of assessment rules to the data.

Provided that external monitoring systems are utilised, and that final certification is based on clearly defined skill profile requirements, consistent and verifiable standards of certification can be maintained.

Concluding Comments

It is clear from the above, that given adequate structure and support, there is no reason to regard workplace-based assessment as inferior to assessments conducted by external assessors or trained teachers. In fact, a close scrutiny of educational assessment policies, methods and practices reveals that they attempt to emulate the 'real' situation or to prove their validity relative to the 'real' situation.

We are therefore faced with two distinct models for quality assessment of workplace skills:

- Remove the responsibility for the assessment process from the workplace trainer, then introduce costly external assessment systems and complicated, cumbersome and heroic processes to 'prove' their industrial relevance and reliability; or

- Leave the responsibility for the assessment process with the workplace trainer, and introduce less costly support systems and monitoring systems to ensure standards are maintained.

In comparing these two alternatives we must recognise that even with substantial effort the external assessor option will always only approximate industrial reality. We must also acknowledge that the workplace assessor option will require vigilant monitoring and support.

In particular, the following conditions are required to ensure that workplace assessment acts as a powerful and constructive force which promotes the goals of equity, productivity and quality in training and personnel management:

The conditions underpin the New Apprentice Training and Assessment

Workplace trainers competent in the skills they teach

using

Clearly stated skill requirements
Skill-based observation of workplace performance
Skill-based records of progress
Skill-based criteria for certification

and providing

Trainee access to records
Immediate feedback on performance

with

Independent monitoring of training and assessment standards

will assure

Valid, accurate and meaningful assessments

Scheme and the new Public Sector training initiatives in Western Australia, covering both workplace and college assessments.

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SUMMARY OF WORKSHOP DISCUSSIONS FOLLOWING RUSSELL DOCKING'S PAPER: ASSESSMENT IN THE WORKPLACE: FACTS AND FALLACIES

One of the group workshops used their discussion time to answer some of the questions which were given as a starting point to the discussion. To the first question suggesting that 'front end' vocational qualifications might become irrelevant with introduction of competency assessment this group agreed that they could be replaced by entry selection tests but nevertheless the learning process which ends in a formal qualification also prepares people for selection tests.

To the question of whether the assessment undertaken in the workplace by a trainer or supervisor would be biased, the group asserted that it would be no more than that undertaken by the off-the-job trainer particularly in so far as the workplace assessor will receive negative feedback from his/her colleagues in other parts of the enterprise if the trainer's work is substandard. The relationship between workers' understanding of work processes as well as their attitudes towards work was the subject of the last question. The group stressed that attitudes and understanding are equally important components of on-the-job competence. The group expressed concern over the difficulties in assessing attitude and argued that the teaching modules should incorporate elements which introduce trainees to the importance of attitude as well as skills in the workplace. This point was also taken up by the second group.

The second workshop group treated the issue of assessment in the workplace differently and dealt with the topic under a number of different headings. These included:

- the issues of quality of teaching the workplace. What mechanism will be established to ensure quality teaching? Who assesses the competence of the workplace assessor?

- since the notion of standards is inherent in workplace assessment then perhaps the term 'required standard' should be better defined. The term may take on a different meaning depending upon the context in which it is applied. Furthermore, provision for changes in standards must be made given the rate of technological change. Another issue associated with standards is that they are not going to be specific enough for one person in the workplace to assess another. Employers' standards are not necessarily industry standards: not all industry standards may suit all employers.

- workplace assessment can't be a one-off event to gain a qualification. Performance must be reassessed in the light of the changing workplace. Assessment of new skills is just as relevant as assessment of initial training. Who will be responsible for ensuring continual workplace reassessment?

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A WORKPLACE EDUCATION (ADULT LITERACY) PROJECT IN THE HUNTER VALLEY

BRIEF PRESENTER: Margaret McLauchlan
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Summary

This paper outlines the background and findings of a Workplace Education (Adult Literacy) Project conducted by TAFE's Adult Basic Education staff for a particular Hunter Valley industry, targeted to their non-trade employees. To identify the specific literacy needs, an interview and assessment procedure was applied. The findings indicated that employees of the 24 interviewed would benefit from skills upgrading in the areas of literacy. The literacy skills of the other 6 employees were considered too advanced for the proposed class.

Employer's Request: TAFE Response

The industry requested assistance to implement literacy and numeracy support for the non-trade employees within the industry's award structure. An employee is placed in one level and is able to move to the next level by means of the industry's competency test, dependent on the education or training attained. The Workplace Education Project was designed in two stages; stage one was to conduct information sessions to nominated shifts, and stage two was to establish a classroom on-site and to commence educational sessions for a specified time.

Establishment of the Planning Group

Based on the structure of Melbourne's Council of Adult Education Workplace Basic Education Project, a planning group was formed with members from the industry, TAFE, the NSW Trades and Labour Council plus the NSW Adult Literacy Council Co-ordinator of the Workplace Basic Education Resource Project. It was decided that each industry site should form a Site Implementation Group to develop and oversee their own workplace education classes. This site group would have representatives from the industry, TAFE, union, employee student body and the planning group.

Advertising at the Workplace

In order that the employees learn about the Workplace Education (Adult Literacy) Project, a number of vital communication strategies were needed. The section foreman from each shift and the occupational health and safety nurses were informed about the project as well as the TAFE information sessions. Similarly the site chairman and the union delegates were informed and 100% agreement was given for the project. An article describing the project was printed in the administration newsletter which was targeted at management and staff. A selection of posters illustrating literacy themes was displayed around the site.

The Information Sessions

Two TAFE teachers conducted information sessions over two days of the shift changeover. To achieve an informal atmosphere in the staff training room, the seating was arranged in a semicircle with the session delivery from the front of the room; a collection of literacy resources and samples of student story writing (called Language Experience) was placed strategically on a table near the door. This was a debriefing area for the employees who had listened to a sensitive topic: here they could release tension or display nonchalance about the topic. Two training officers attended the sessions to answer questions from the employees. In total, 179 workers attended the 14, one-hour sessions on a voluntary basis. One shift of non-trade workers did not want to attend, and their place was taken by other staff. Employees were told to post the reply cards in a ballot box to be displayed in the occupational health and safety nurses' office. This ballot box remained in the training room over the two days. Employees were eager to participate in the project and not shy at 'posting' their reply cards, since the majority (30) were placed in the ballot box or handed either to TAFE teachers or industry staff at the conclusion of the sessions. Thirty-four reply cards were received in total. At question time the employees focused on what level the class would be, when it would start, the industry's contribution (study leave, attendance in shift time) and general inquiries about literacy teaching.

The Workplace Education (Literacy) Interview Sheet

This interview sheet was based on other instruments used in Australia, UK and the USA. The primary aim of the instrument was to gain as much relevant information as possible in a relaxed and confidential setting. The employees were asked to state long- and short-term goals, educational background and confidence level in community and workplace literacy situations from a checklist provided. To assess comprehension, each person chose one of two graded texts to read and answer questions as well as clearly demonstrating comprehension on a number of industry specific literacy tasks (three tags - warning, defect and danger and a leave form). A checklist on mathematics and a survey for people from a non-English speaking background could also be used if needed.

The Interview Sessions

The employees who had requested interviews were sent letters informing them of the time, date and venue: the shift foremen were also informed. The nurses' surgery was chosen as the interview venue because of its perceived neutrality, and two separate rooms were available for the interviews. If an interviewee failed to attend, the training officer was telephoned who attempted to make contact with the employee. Two extra interviews were scheduled in the interview timetable. Follow-up letters were sent to the employees who were unable to attend their scheduled interview time. Letters are planned for the interviewees informing them of their selection for the Workplace Education class. Similarly letters are planned for those who would gain more benefit from other courses.

Results from the Workplace Education (Adult Literacy) Survey

There was a range of ages with 3 people less than 29 years old, 9 people between 30 and 35 years old, 4 people between 36 and 40 years old and 8 people between 41 and 49 years old. The results for the levels of education showed that two interviewees had primary school education only, while 4 went on to Years 11 and 12. The majority of interviewees (12) attended to Years 9 and 10 while six people went to Years 7 and 8. The full range of years of service in the enterprise was also extracted. Six interviewees were employed for less than 11 months and 2 had been employed for more than 15 years; the 6 - 9 years service group and the 10 - 14 years service group each accounted for 4 interviewees. The highest number of 8 interviewees was in the 1 - 5 years service group. The interviewees from non-English speaking backgrounds were able to be understood by the interviewer, indicating that there was no difficulty with oral communication. The interviewees were asked why they hadn't gained literacy skills at school and whether they had problems at home which could have affected their educational process. The reasons were typical of those given by adults with literacy difficulties and appeared in three categories - family, educational and personal reasons.

The Workplace Education (Adult Literacy) Project had as its focus, the non-trades employees. The analysis of the responses confirmed that this was so: 13 were cleaners, 5 were tradesperson's assistants, 2 were maintenance fitters, 1 was from the store, 1 was a rigger, 1 was a crane driver and 1 was a workshop foreman. In total, 21 interviewees were from the non-trades areas. The employees had brought a range of valuable skills to the industry and their past experiences included skills in management, communication and organisation, skills from industry, skills from the construction industry, clerical skills and specific skills.

The interviewees were asked what long-term goals they had or what plans they had for their working life. The majority of them wanted to advance themselves, improve their qualifications, and indicated their aims for specific positions in the industry. It was obvious that the majority were ready for change and to participate in new options. This was demonstrated in the varied training courses in which they wanted to enrol. A small number wanted to become foremen, to be operators, to work in stores and to work in the clerical area. The majority of interviewees had already formulated clear plans to upgrade and/or gain licences and certificates. The licences included those required to drive a dozer, a front-end loader, a crane or to control a winch. The TAFE certificates and other courses which some wished to undertake included boilermaking, welding, electrical trade, mechanics, carpentry, rigger, coal plant operation course, car mechanic, a industry specific course or computer skills. The personal goals covered the following: to read more fluently, to help the children, to stay in the same position until confident or to gain confidence in attempting something new.

The short-term goals covered both specific and functional needs; for example, to write messages from the emergency service's radio control, to write reports in a concise manner, to pass the first aid test, to improve comprehension and study skills or to upgrade the vocabulary in writing.

Reading Checklist

A list of literacy items was read to interviewees who indicated whether they were able to complete each task with confidence ('I do this'), or in fact needed help to complete each task ('I'd like to be better at'). A space for specific needs was included. The items covered community and workplace literacy tasks. Results for the 24 interviewees will be presented first, to be followed by a second interpretation. The second extrapolation respresents an attempt to clearly view the confidence levels of the remaining eighteen interviewees after the results of six advanced intervews have been extracted.

The majority of interviewees stated that they could cope with reading magazines and newspapers (83%), reading job advertisements (87.5%), reading timetables (92%), reading catalogues (96%), reading labels (96%), using the phone directory (83%) and reading diagrams (67%). Trade unions should be comforted by the fact that 87.5% stated that they could read trade union notices, and likewise the industry should feel pleased with 83% stating that they could read the safety manual, 75% the timesheets and 87.5% messages at work. However, when the tasks required a higher order of literacy skills, the percentage of interviewees declaring that they were confident in these items declined.

Furthermore, when the results of the six advanced interviewees are extracted from the group percentage, another picture emerges. The results of the eighteen interviewees. (The second percentage figure in the brackets clearly shows the decline in confidence level. Interviewees indicated that they were confident in reading maps (58%; 44%), using dictionaries (58%; 50%), using reference books (62.5%; 50%), reading contracts (legal, insurance work, house 25%; 17%), reading instructions relating to maintenance (58%; 44.4%), reading letters (management, friends, school, personal, postcards (46%; 33.3%), reading forms and leaflets (accident, tax, medicine, reports 42%; 28%) and training notes (58%; 50%).

Comprehension Skills

The comprehension tasks consisted of oral reading from a graded text, a cloze test, locating a key work and an inferential question; the spelling task was a one sentence dictation. The industry-specific tasks consisted of oral reading from three tags (warning, danger, defect) and completing personal details together with a reason for leave on a leave form. All interviewees (regardless of literacy level) were able to clearly demonstrate comprehension (purpose) of the safety tags. On the other hand, the results of completing the leave form were very revealing. Many interviewees had difficulty in correctly filling in the various sections. Eleven learners (45%) of 24 employees failed to complete the section dealing with the applicant's details and spelled words incorrectly. The majority of reasons written would be correct for special, short and annual leave. Five people (21%) wrote reasons which would be classified as sick leave. It should be noted that the form selected was intended for other types of leave other than long service and sick leave. The comments were interesting; for example, 'I put down "flu" and it copes for all occasions'; 'the foreman fills it out for us'; 'I am copying the word 'annual' from that part of the form and writing it here as the reason for leave'; 'I want to write this reason but I can't spell the words 'personal business cannot be done outside working hours'; 'I put down annual leave for all my reasons'. The last comments should be of some concern to management and unions, for the employee could be using up annual leave instead of correctly applying for special or short leave.

Maths Checklist

This item was similar to the reading checklist, where the interviewees stated their level of confidence when completing the item or that improvement was needed. Eleven out of the 24 interviewees stated that they would attend a mathematics class if it was offered at the workplace. Similarly the level of confidence in performing the basic operations certainly decreased when the operations required higher skills. For example, 82% of interviewees stated that they were confident with addition and 73% with subtraction. The interviewees stated less confidence with multiplication (45%) and even less for division (18%). Also, the level of confidence with decimals, percentages, metric, geometry, graphs, charts and tables was only 18%. Very pleasing results were found in telling the time, with 100% of the interviewees stating confidence with the 12 hour clock, and 73% with the 24-hour clock. Confidence in skills relating to personal finance (money, interest, bills, credit) is an area of concern; 36% of interviewees felt confident performing these tasks, while 45% felt confident in dealing with budgets. The confidence level with using a calculator was 45%.

The areas which had received very little practice since school days were quite evident. The interviewees probably had difficulty grasping these concepts while learning them at school.

The confidence level for fractions, weights, measures, area and volume was quoted as 9%, while no confidence at all (0%) was felt in the areas of ratios, estimation and algebra. In the space dedicated for other items, logarithms were understood by two employees and scientific notation by one. The personal reasons to upgrade in mathematics included: to help children with homework (one at primary and one at high school), to write out cheques, to run a farm business, to mentally calculate maths faster and to complete the industry's technician assistant course.

Employer's Response

The industry has agreed to conduct three literacy classes for 36 weeks at the particular site and these are expected to start in August 1990. Concurrently site planning groups are to be established at the industry's four other sites in the Hunter Valley and one at Lithgow. The establishment of classes in mathematics on site is presently being discussed.

MORE AND BETTER SKILLS RECOGNITION; WHERE ARE WE UP TO? WHERE ARE WE GOING?

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Where are we up to?

Early in 1988 I wrote a short polemic for the **Sydney Morning Herald**, attacking the 'genteel protection racket' jointly conducted by tertiary education and the various professions and para-professions by means of their control of credentials. The article drew on overseas experience (such as that of the Regents College Degree Program) to argue for 'an Australian credentialling agency' which would open up educational and vocational credentials to competence rather than time served in ever-lengthening, ever more abstruse courses of study.

Comments on the article at the time suggested that such ideas were exotic, and fanciful. But the pace of change has been such that only two and a half years later it is almost a conventional wisdom to argue that learning should be recognised irrespective of where, when and how it was acquired. Like everyone else in the field I too have learned a lot, and my rather naive proposal for an 'Australian credentialling agency' has been overtaken by events, including the following:

- Award restructuring in two industries (Metals and Hospitality) has progressed to the point where national standards and assessment systems are nearly ready to go. Several other industries are not far behind.

- A number of enterprises have developed or are working on ways of giving formal recognition (on paper and in pay rises) to combinations of practical experience and training. (See, for example, Brown in this volume).

- Substantial projects are under way to recognise the skills held by neglected groups of workers such as clerks. (Bellenden 1990).

- At least three separate projects are tackling the design of 'skills' or 'credit' banks which can store and retrieve records of skills recognised.

- The infrastructure of a national skills recognition system is now filling out, with NOOSR operating for a year or so, the National Training Board established, the new Register of Awards in Tertiary Education (RATE) replacing the Australian Council on Tertiary Awards (ACTA). At the State level new or redesigned training authorities are moving to integrate the public and private (i.e. in-house, market-based and community provider) training systems.

- A number of higher education institutions are talking seriously about the idea of recognising learning through experience, and at least one (the Victoria College, through its Technology Management program) are actually doing it - and recognising TAFE and other formal qualifications as well. (Stokes et al 1990)

- Some occupational groups (including professional occupations) are rethinking entry routes and career paths. The Institution of Engineers, for example, (long an adamant defender of graduate entry) has endorsed the idea of entry to and development within the profession through structured combinations of experience and formal learning. Even school systems (such as those of South Australia and Western Australia) are rethinking the professional development of school Principals in similar terms.

There are three ideas at the core of these various reforms.

First, training and development should focus on the achievement of clearly stated standards (developed through analysing job and workplace requirements) rather than by the length of time served on the job (as in many apprenticeships), or completion of a formal course of study over a set period of time. Skills will be recognised wherever, however and whenever they have been attained, on or off the job, through programs in public, in-house, market-based or community-provided programs. The training and development system and its various programs should be, in other words, 'competency-based'.

Second, when individuals have been assessed as meeting competency standards they should be given formal recognition of their attainments, both industrial and educational. The attainment of skills should open up new possibilities for reward and advancement in the workplace, and for further study in the formal education and training system. In other words, all employees should have access to 'career and training paths'.

Third, both the new skills standards and the new career and training paths should be defined in and backed by industrial awards, with these in turn linked to the development of more productive workplaces. As the Federal Government's major statement on the question puts it:

> Consistent with the Structural Efficiency Principle established by the August 1988 National Wage Case decision, negotiations on award restructuring are now in progress across a wide range of industries and sectors... The negotiations required will involve extensive review and eventual overhaul of existing industrial awards, leading to new arrangements consistent with modern economic and industrial circumstances. The issues to be addressed are both substantial and wide-ranging, including revision of job classification structures, the establishment of new career paths and remuneration arrangements, improvements to skills formation and training practices, and reforms of work organisation, working time and payment systems. (Commonwealth of Australia, April 1988, p. 13).

When we prepared the Employment and Skills Formation Council report, **The**

Recognition of Vocational Training and Learning, about a year ago we were surprised to find more than forty innovations and plans giving expression to one aspect or another of this general approach. (Employment and Skills Formation Council 1990). A repeat of that quick national survey would find many more innovations now. In brief, the idea of more and better skills recognition has taken off.

I none the less find myself looking at current developments with something like Gramsci's optimism of the spirit and pessimism of the intellect. The optimism of the spirit is easily explained. The recognition of more kinds of learning (and especially of practical capacity) by public authorities, educational institutions, and employers offers hope of a profound shift toward a fairer and better educated culture as well as a more productive one.

But how far will the reforms go? And what will be the end result? The argument advanced suggests that the reforms now in train will not go far enough, and that the end result may be very different from that which is intended. This case is laid out under three headings:

- The development of new recognition machinery
- Problems of design
- The underlying logic of more and better recognition.

The Development of the New Recognition Machinery

Public authorities and at least some leaders of business and union opinion have rightly stressed the urgency of change. That same sense of urgency has not been obvious in many practical decisions.

The linchpin of the new recognition system, the National Training Board, has taken a frustratingly long time to get going. Another key element of the new scheme of things, the recognition of private training providers and programs, has been even slower in happening. There is still no genuinely open recognition ('or accreditation') system in any State. Two States (New South Wales and Western Australia) still have not even established the authority to extend accreditation, and one of these (Western Australia, until recently a pace-setter) has no immediate prospect of doing so. (Commonwealth of Australia 1990). A recent survey of movement in the TAFE system towards competency-based courses and programs reveals very slow and uneven change, even when measured against a very generous notion of what constitutes a competency-based program. (Thomson, in this volume). Higher education institutions have been slower still in getting to grips with the issue of credit transfer amongst themselves, much less the recognition of associate diploma and other 'lower' tertiary qualifications.

Of course these changes in the machinery of public regulation are meant to go hand-in-hand with redesign of workplaces and jobs, to provide the currency of new career and training paths. But here too the current pace of change is discouraging. Recent and authoritative evidence (from the BCA/Monash survey of restructuring at the enterprise level) concludes in these terms:

> These results strongly suggest that even among respondents representing a 'best case scenario' of workplaces within Australia's largest firms, the number of workplace changes which have been already implemented as a result of the Structural Efficiency Principle is limited. This is despite the fact that a quarter of respondents have company awards and most managers (72%) had been personally involved in the negotiations with union officials and workplace job delegates. It would appear that few of the workplace managers respondents to the survey are seeking to establish their own workplace or enterprise specific arrangements ahead of the gradualness evidenced at the industry level, as exemplified by the leading industry model of Metals and Engineering. (Curtain 1990).

To this account we may add that in many industries there has been something approaching incomprehension of the Structural Efficiency Principle. Less charitably, it may be suggested that the idea has been comprehended and therefore resisted.

More worrying than a frustratingly slow pace of change, however, are weaknesses in the design of the new machinery.

Problems of Design

The example of accreditation of private training providers and programs is the most obvious case in point. The new skills standards and accreditation system was given its shape by the meeting of Ministers of Labour in April 1989. The essence of the agreement was that skills should be defined nationally (by a new National Training Board), but accreditation of programs to provide them should remain with the States. The first half of the agreement represented a triumph of the new approach to skills formation, the second a triumph of parochialism.

The upshot has been predictable. Even where accreditation arrangements are appearing, they are different from each other. At a time when the Prime Minister is leading thinking about getting rid of different railway gauges we are busy in the crucial area of skills formation putting a whole new set of railway gauges in place. As things stand at the time of writing, any firm developing skills according to national standards in two or more States must queue up at two or more separate agencies to meet two or more sets of criteria for accreditation of its capacity to deliver those national skills. Likewise, employees who move from one State to another may find that workplace learning recognised (for industrial purposes or for entry to a TAFE or higher education course) in the State they are leaving but not in the State they are entering.

Structural weaknesses in the national machinery of recognition are plain elsewhere. The membership of the National Training Board is dominated by the public sector and by the States at the expense of industry and the unions, while the Board's broad charter is not matched by its slender resources (it will have a professional staff of only a dozen or so). The shortage of people competent to carry through the massive program of skills analysis, design of assessment systems and all the rest is a general one. There has so far been no concerted move by any public authority to meet the enormous demand for expertise in the whole area of skills recognition. Indeed it is a nice irony that there is no plan for a career and training path for the many people (ranging from shop floor supervisors to assessment professionals) who will make up the 'recognition workforce'.

Underlying these problems in machinery is a tacit acceptance of a triple division in the Australian vocational recognition system: first, between what is recognised in and by the workplace and what the academy will count; second, between the currencies of higher education and the programs offered by TAFE and its private sector peers (second); and, third, between the qualifications of the professions and para-professions and those of other occupations.

The National Training Board, for example, is charged with bringing competency-based skills recognition to occupations up to, but not beyond the para-professions. Below the line (it appears) real workplace skills and multiple skills development processes are needed, but above the line what counts is the number of years spent in programs of study which have more to do with academic traditions that workplace realities.

It is true that the National Office of Overseas Skills Recognition (NOOSR) is charged with pushing the para-professions and the professions toward clear, defensible vocational standards, but it has only a tiny staff and budget with which to achieve this Herculean task, and its main brief, moreover, is to establish the equivalence of local and overseas qualifications rather than to tackle the standards issue head on. RATE, sometimes depicted as the second line of assault on the commanding heights of the workforce, is really ACTA by another name, persisting with its predecessor's practice of recognising pieces of paper according to the length of study required to get them, rather than recognising groups of skills.

The failure so far to tackle seriously the way in which most (and the highest-status and best-rewarded) occupational credentials are earned is strongly related to a little noticed but enormously powerful dynamic in the education-economy relationship: credentialism. This takes us to a third and larger source of pessimism.

The Logic of Formal Recognition

The current wave of reform of vocational recognition stands on the premise that the formal recognition of skills and knowledge can service a number of positive purposes. That is plainly so, and the constructive potentials of credentials have been very well laid out in a number of recent Federal Government papers and statements. (Commonwealth of Australia, August 1988, April 1989, April 1989). Formal recognition of skills is inequitable because so many of the skills now held in the workforce (and especially those held by women and by those in the bottom half of the labour market) are unrecognised and therefore unrewarded, financially or psychologically. Skills held are often unused or undeveloped because they are unrecognised. Much educational and training effort is wasted, a weary slog over already familiar ground, simply because learning done on the job or elsewhere is not noticed. It follows that more and better recognition of skills can enhance equality, efficiency, the quality of working life, and productivity.

It also needs to be remembered, however, that formal qualifications have other consequences. If they can help in finding, selecting and promoting employees, they can also make these decisions slow and discriminatory. They can help establish occupational monopolies which reward membership of the club rather than (or as well as) real and needed skills. Over time occupations and individuals compete with each other to get higher status qualifications,and therefore demand longer and more abstruse courses of study (credential inflation) as the price of entry. Educational resources are wasted and, worse, distorted as the link between workplaces and learning places grows longer and thinner. Extra educational effort goes to those at the top of the tree rather than those lower down.

Indeed it could be argued that one of the main sources of structural weakness in the Australian education and training system is the unusual scope given to the accumulation of educational credentials in this country. It would help to explain the strong emphasis given to front-end programs (at the expense of recurrent or continuing education and training); the relative strength (by international standards) of the public sector and the relative weakness of the private; the very marked separation of formal learning from the world of work (including a widespread disdain within the public education system for applied knowledge and practical learning); and the high proportion of education and training effort devoted to the top third of the labour market (again by international measures) and the relative under-emphasis on the middle third and the shameful neglect of the bottom third. (Ashenden and Sweet July 1990).

Escalating competition for credentials would above all, help to explain the extraordinarily rapid expansion of the Australian formal education and training sector over the past generation or two. In 1952 there were nearly 1.5 million students in Australian schools, 170 000 students in technical education, and a further 30 000 in universities. Only thirty years later, less than a working lifetime, the number of school students has doubled, the number in technical and further education quadrupled, and higher education students numbers have multiplied no less than twelve times. (Commonwealth of Australia Yearbooks, 1954, 1985).

It is especially important to note that this expansion in the supply of educated and trained labour has proceeded much more rapidly than expansion of the workforce. Between 1964 and 1984 the number of new graduates at Bachelor level and above multiplied seven times compared with only a threefold increase in the size of the workforce. Between 1968/69 and 1981/82 the number of males in the workforce with formal qualifications doubled and the number of females tripled. Over the same period the proportion of the workforce holding post-school qualifications rose from 25% to 49%. It seems at least likely that this accumulation of formally acquired skills and knowledge proceeded much more quickly than change in the number or character of skills demanded by the labour process. (Ashenden 1988, Sweet 1987).

If this picture of the shape of our education and training system and of its relationship to economic activity is roughly right, then several policy directions follow. We should be looking not so much to increase the supply of skills as to redistribute it; not only to recognise more skills but to be much better at recognising skills developed in, and needed by the workplace; and (finally) to move away from extended front-end, formal education of individuals, and to expending relatively more effort into on-going skills formation through structured combinations of experience and learning.

How do the new recognition arrangements measure up to this prescription?

Skills Recognition and the Existing Credentialling System

There can be no doubt that the development of career and training paths for all workers in (for example) the Hospitality and Metals industries strikes a major blow for educational equality in Australia. People who typically left school early will have, for the first time a genuine opportunity to learn and to go on learning. They may also obtain a greater measure of wage justice by being paid for what they already know and for what they subsequently learn. There is also at least a good chance that workplaces in these industries will be the site of much more learning than has been the case in the past, and that the greater sense of satisfaction and purpose which this produces will reduce labour turnover and absenteeism, increase quality of work, and hence boost productivity and competitiveness. In short, competency- or skills-based training and development coupled with career and training paths developed through award restructuring have, in design at least, the potential to address some of the really big structural deficiencies of the education and employment systems.

Much the same case can be made for other new or proposed skills recognition mechanisms. The Victoria College 'articulated' Technology Management program, for example, is a model of the idea that one level of learning should lead to another, that qualifications can be traded in as people move up the ladder, and that formal and informal learning should be recognised within a single qualification.

Yet these same developments contain within them contradictory elements. At the heart of the idea of career and training paths, for example, is the requirement that movement from one occupational or wage level to another can be accomplished only by those who have the required piece of paper. The possibility that these movements will become regulation bound and governed by vested interests rather than determined by objective judgements about skill levels is obvious. There will be a steady pressure to guard each of the key levels of occupational boundaries by 'tougher' pieces of paper - that is by requirements which run ahead of real need, or which are met by formal instruction rather than learning through the work process.

The evidence of the Monash/BCA study suggests that workplaces will fail to change quickly enough to keep up with the supply of people with new skills or new evidence of skills. In other words, the new skills recognition systems may have credential inflation built into them. The extension of formal recognition to the whole workforce (rather than about half of it as at present) contains the same potential. It can from this perspective, be regarded as a kind of vacuum cleaner or funnel, bringing much larger numbers of occupations and of individuals into the system of competition through the possession of formal credentials.

Perhaps most worrying is the failure (so far) to really tackle the basis on which existing and largely high-status qualifications are awarded, which, coupled with the development of competency-based qualifications at the lower end of the labour market will generate a perception that 'competency-based' means 'second-best' - a stop-gap. Quite aside from the damage such distinctions would do at both ends of the spectrum, it is likely to increase the pressure on many occupations and individuals to get 'real' qualifications, and thereby accelerate the operation of the ratchet of credentialism.

In this light some of the problems in the design of the new machinery noted above take on a larger significance. One of the reasons for slowness in developing accreditation of private providers and their programs (for example) is the tremendous pressure from the established public credentiallers to grant accreditation only to providers and programs which are like them. In other words, in-house, community and market-based provision may be pushed towards being more course-based, and towards making more use of the classroom rather than the work process as the site of learning.

The very powerful resistance of higher education institutions, tacitly or explicitly supported by professional associations, to the Federal Government's attempt to limit the length of courses and to move courses toward a basis in explicit standards seems to be another case in the same general point. (It is significant that the very enlightened approach taken by the leadership of the Institution of Engineers seem to be under threat by the Institution's membership).

In sum, amongst the impulses contained within the new recognition arrangements is an expanded credentialism. It may be strong enough to push us further down the US route rather than the Japanese or the German where credentials are more closely linked to the labour market and the competition between occupational groups and individuals, than to the labour process and the competition for greater productivity.

How, if at all, might policy anticipate and forestall this possibility?

Some Ideas for Policy

It may be that the new recognition mechanisms can be shaped to influence what they eventually produce. The following may be worth considering:

- The maldistribution of vocational qualifications could be tackled by a combination of boosting the production of qualifications for the bottom third of the workforce while containing expansion of credentials amongst the top third.

On one hand, then, would be a very big 'catch-up' effort via competency-based programs which codify and then assess the skills used in the bottom third of the workforce (in broad terms, occupations up to but not including the trades). This is exactly the thrust of work in the hospitality, TCF and other industries, but it needs much more support from governments and from the business community. Award restructuring will be the main vehicle for this work, but other supplementary possibilities are illustrated by the TRAC program reported in this volume and a proposal for a National Basic Education Strategy. (Coopers & Lybrand 1990, Sweet 1990)

At the same time, the top third of jobs should be addressed. Here the key is transforming the way in which existing vocational qualifications are awarded. The length of front-end tertiary programs should be traded off against increases in recurrent learning, accompanied by the staged acquisition of qualifications and entry to professions. Programs should be developed on the basis of explicit, publicly-justified standards. If 'time served' on the job is not a good enough basis for apprenticeships nor is time served in academe (whether the higher education or the TAFE versions) good enough as a way of getting para-professional and professional qualifications.

There is no hope at all of making much headway on this task unless very large intellectual, political and financial resources are mobilised. Promising examples of how to proceed include a management education program being developed by the UK's CNAA (Council for National Academic Awards 1989). A much stronger reform structure is needed. One possibility would be to adapt another of the UK's initiatives, the National Council on Vocational Awards (NCVQ). The NCVQ is in effect an accrediter of qualifications, but its accreditation is available only to qualifications which are delivered through competency- or standards-based programs. The NCVQ's weaknesses exist in their being prevented from dealing with upper-level qualifications, and in lacking statutory power. An Australian adaptation might overcome these weaknesses by building on and greatly strengthening RATE and NOOSR.

- The rapidly-emerging shortfall in 'recognition expertise' must be urgently tackled by means of including a career and training path for recognition of workers, and a major program aimed towards recognising such skills where they exist and developing them where they do not. The para-professions and the professions will not be persuaded to move towards standards-based programs while we are able to do so little work on defining standards and assessing them, especially in the area of 'complex', 'communication' and 'high level' competencies. More generally the idea of recognising prior and informal learning, so corrosive of time-based approaches to learning, will remain marginal or disreputable pursuits if they are not staffed by credible people.

- The mechanism governing career and training paths should be rethought. As things now stand we are moving towards a 'barrier' system, which requires the possession of all the skills at one level before moving to another level, a mechanism guaranteed to produce both rigidity and skills inflation. This is probably essential in some areas, especially where health and safety are in question. But elsewhere appropriate qualifications should be rewarded rather than required. One way of shifting to this approach would be to replace the current matrix structure of skills and career paths with a points system. At the aggregate level, work is needed to shift the emphasis from the possession of packages of skills or learning (certificates, degrees, etc.) towards profiles of skills matched to the requirements of particular positions. Skills recording systems should be based on skills banks rather than (as at present) certificate banks.

- A careful distinction should be drawn between the nature and functions of competency assessment (on the one hand) and performance appraisal and management (on the other), and the latter should be developed hand-in-hand with the former. Increasing numbers of industrial awards are using competency assessment as the basis for entry to occupational levels, thus throwing a lot of weight on assessment of performance at one point in time, and encouraging the development of rigid career and promotion systems. Rewards for the possession of skills are over-emphasised, while rewards for the productive use of them is under-emphasised. It is in the interest of both sides of the industrial fence that good performance should be acknowledged and rewarded on an ongoing basis, and industrial awards should acknowledge this.

- The suggestions made above imply that the Australian education and training system has been producing qualified people faster than the labour process has been absorbing them, and (second) that the very weak links between the education and training system and the labour process results in skills which are often inappropriate and badly distributed. The other side of this coin is that the Australian economic system is not sufficiently involved in skills formation and has insufficient capacity to use the increasing quantity of skills being made available to it. The fifth and last suggestion must therefore be that our skills formation strategy must give at least as much attention to skills demand and skills use as to skill production - that is, to the reform of the workplace as well as to the reform of the education and training system. This is too large a question to canvass here, but one promising approach to this very big issue is sketched in a paper commissioned by the Business Council of Australia. (Curtain 1990).

Concluding Note

It has been argued that the present wave of reform of vocational recognition in Australia has four planks, three of them explicit and a fourth tacit. The first three are:

- A competency or skills standards approach to training and development;

- Career and training paths;
- A new link between industrial awards and skills formation.

The fourth is:

- Much of the existing recognition (or 'credentialling') system and the career and training paths which it serves should be left largely intact.

It has also been argued that the combination of these four elements may have unforeseen effects, some desirable, some not.

- It may produce a very rapid increase in the number of (competency-based) vocational credentials.
- The productive effects of this increased recognition may be offset or outweighed by the way in which these new qualifications are incorporated into the labour market and the labour process. That is to say via career and training paths which have the potential to introduce new rigidities, and skill or qualification requirements greater than workplaces are able or willing to absorb.
- Competency-based career and training paths may also serve to channel increased numbers of people into the top third of the credentialling system, the present character of which (time-based, and acquired via front-end and/or academically based formal programs) is likely to persist. This will continually create a heavily stratified skills formation system, marked by a persistently weak connection between sophisticated skills and the production system, and by a greater struggle to share in the fruits of production rather than to increase the amount of it.

Perhaps this diagnosis is too pessimistic. Certainly there are some countervailing trends (in higher education and in TAFE for example) which have not been canvassed here. Perhaps (on the other hand) the problem is larger than policy can effectively manage. Both the problems addressed by the new recognition arrangements and the problems within them relate to larger structural difficulties, including a federal political system, and an industrial and educational system inherited from the UK.

More generally, the problems of vocational credentials are a part of a larger problem which has been pinpointed by critics ranging from Donald Horne in the early 1960s to John Button in the late 1980s. We are keener on consumption than production. Credentials are indeed a genteel protection racket. In a week when Bond and Elders both posted record losses we do not have to stand very far back to see that, in this respect, credentials are a part of a culture which endorses or tolerates various ways of cornering unearned rewards.

Postscript: a small gain for optimism

The 'very enlightened approach' taken by the leadership of the Institution of Engineers (and referred to above) was accepted by the membership by a majority of about two:one in a vote taken shortly after the manuscript for this chapter was submitted for publication.

References

Ashenden, Dean. (1988). Power house or gravy train? Credentialism and policy on education and the economy. *The Bulletin of the National Clearinghouse for Youth Studies*, 7(2).

Ashenden, Dean & Sweet, Richard. (1990). Education: some myths - and home truths. *Independent Monthly*, July.

Bellenden, Clarice. (1990). Keeping and using records of skills and competencies: clerical workers. Paper prepared for the IBC Conference 'Training Accreditation and Skills Standards'. State Training Board, August 1990.

Brown, Alan. (1990). The recognition of prior learning. Paper delivered to the Conference on Assessment and Standards in Vocational Education and Training, Adelaide 1990 and included in this report.

Casey, Derrick. (1990). National recognition of experiential learning for the hospitality industry. Paper delivered to the Conference on Assessment and Standards in Vocational Education and Training, Adelaide 1990 and included in this report.

Commonwealth of Australia. (1989). *Award Restructuring: The task ahead.* Canberra: AGPS.

Commonwealth of Australia. (1989). *Improving Australia's Training System.* Canberra: AGPS.

Commonwealth of Australia. (1988). *Labour Market Reform: The industrial relations agenda.* Canberra: AGPS.

Commonwealth/State Training Advisory Committee. (COSTAC) (1990). *An Overview of Official Accreditation Arrangements for Vocational Courses/Training Programs.* Canberra.

Coopers & Lybrand with Ashenden & Associates. (1990). *Report of the Strategic Review of Commonwealth/State Funding to Adult Literacy Programs.* Canberra.

Council for National Academic Awards. (NAA). (1989). *New Initial Award in Management Education.* Development Services Briefing No. 15. London.

Curtain, Richard. (1990). *Internal Versus External Labour Markets: Choosing an appropriate enterprise skill formation strategy (Author's draft).* Melbourne: National Key Centre in Industrial Relations, Monash University.

Employment and Skills Formation Council. (1990). *The Recognition of Vocational Training and Learning.* Commissioned Report No. 1, Canberra.

National Training Board. (1990). *Setting National Skills Standards.* Canberra.

Rein, Anne. (1990). Using skills and competency standards and assessment. Paper prepared for the IBC Conference 'Training Accreditation and Skills Standards'. Tourism Training Australia.

Stokes, D.M. et al. (1990). The development of award courses in technology management for the motor car industry. Paper prepared for the IBC Conference 'Training Accreditation and Skills Standards'. Melbourne.

Sweet, Richard. (1990). TRAC: A competency-based link between school and work. Paper delivered to the Conference on Assessment and Standards in Vocational Education and Training, Adelaide 1990 and included in this report.

Sweet, Richard. (1987). Australian trends in skill requirements. In Gerald Burke & Russell Rumberger (eds.), *The Future Impact of Technology on Work and Education.* London.

Thomson, Peter. (1990). Competency-based approaches to training in TAFE. Paper delivered to the Conference on Assessment and Standards in Vocational Education and Training, Adelaide 1990 and included in this report.

SUMMARY OF DISCUSSIONS FOLLOWING DEAN ASHENDEN'S PAPER: MORE AND BETTER SKILLS RECOGNITION: WHERE ARE WE UP TO? WHERE ARE WE GOING?

The discussions following Dean Ashenden's paper focused on a number of vocational education and training issues which it is believed need resolving in the light of the current changes to Australia's training system. Issues which need resolution and/or clarification included the following:

- perhaps the assumption that Australia is experiencing a deficiency in skills should be challenged.
- changes to education and training should not be confined to the vocational area. The higher education sector needs to confront similar issues.
- more effort needs to be accorded to the recognition of workplace skills.
- CBT programs should incorporate the 'sandwich course' principle - at least on a trial basis. Greater research and development effort needs to be undertaken on assessment in CBT.
- in the light of possibly increasing the role of performance appraisal systems, the application of assessment procedures should be re-evaluated.
- the increasing diversity of trade testing procedures under TRRA should be noted. Skills Centres, enterprises and private providers also now, along with TAFE provide TRRA testing.

THE TRADESMEN'S RIGHTS REGULATION ACT: NATIONAL RECOGNITION IN THE METAL AND ELECTRICAL TRADES

BRIEF PRESENTER: Glen Newton
Department of Industrial Relations

The Tradesmen's Rights Regulation Act (TRRA) is a long standing recognition mechanism, dating from 1946. It is the national mechanism for the recognition of metal and electrical trade skills gained other than by an Australian apprenticeship; that is, developed through informal training on-the-job in Australia, training in the Australian Defence Forces, and formal or informal training overseas.

The mechanism operates through tripartite committees established under the Act. Central Trades Committees at the national level determine criteria for recognition and broad matters of policy, and consider applications for pre-assessment of trade skills from prospective migrants. Local Trades Committees in each State make final decisions on applications for recognition and issue Australian Recognised Tradesman's Certificates.

TRRA is administered by the Department of Industrial Relations. Central and Local Trades Committees are chaired by senior Departmental officers from Central and State offices respectively. Technical Advisers (all of whom hold appropriate trade qualifications) assist the Committees by undertaking initial assessment of applications and preparing documentation for their consideration.

Australian Recognised Tradesman's Certificates are accepted by employers and unions as the equivalent of the completion of an Australian apprenticeship.

TRRA serves three important functions:

- it facilitates harmonious industrial relations in the highly unionised metal and electrical areas by providing an agreed means for recognising trade skills and avoiding disputes over access to types of work and wage levels;
- it contributes to an appropriate skill base in the workforce and facilitates labour mobility, and
- it ensures appropriate points are allocated to prospective migrants for the skills they hold.

A major review of TRRA administration was undertaken in late 1988 by Mr Brian Tregillis (an ex-Director of the Commonwealth Employment Service and an ex-Chair of the Central Trades Committees). The aim of the review was to minimise delays in application processing, and to ensure cost-effective and fair management.

The major reforms introduced following the review were:

- a computerised management information system;
- a rationalisation of Departmental administrative arrangements;
- the streamlining of assessment procedures (including greater reliance on documentary evidence);
- the introduction of program budgeting and partial cost-recovery to provide additional resources and improve service to clients;
- the introduction of performance targets for application processing
  - all applications are to receive initial processing within 30 days of receipt and finalisation within 90 days of receipt;
- closer relations between the Industrial Relations and Immigration portfolios to minimise delays at overseas posts; and
- closer relations with bodies concerned with migrant welfare, in particular State Government overseas qualifications units.

The main outcomes of these reforms have been:

- meeting the 30-day performance standard almost without exception;
- meeting the 90-day standard in 80% of cases; and
- reduction in the number of unfinalised cases on hand from 5100 at end August 1988 to 1850 at end August 1990, despite an increase in applications in 1989-90 of some 36% over 1987-88.

The importance of the TRRA mechanism is indicated by the number of applications for recognition under it. In 1989/90:

- Local Trades Committees considered 5998 applications and granted 4082 certificates
  - while this is an overall success rate of 68.0%, the success rate for migrants assessed by the Central Trades Committees or Technical Advisers prior to migration was 98.4%;
- Central Trades Committees considered 629 cases; and
- Technical Advisers assessed 8172 applications.

Detailed statistics on TRRA activity over 1989/90 are attached.

TRRA reflects the industrial and training environment in which it operates. Consequently, to a large extent it is based on time-serving through its 'six and seven year rules'.

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Nonetheless, it is more criterion-referenced than the training system in general in so far as it has formal training criteria for recognition in place for 44 countries.

In addition, the six and seven year rules are not applied blindly: the process examines the scope and nature of trade work undertaken by applicants. Rigorous examination of applicants is done through a combination of documentation, interviews, on-the-job inspections and trade tests.

The focus of reform of TRRA over the past couple of years has been administration. While this administrative reform is continuing, we are now embarking on reform of the concepts underlying the operation of the TRRA mechanism. Major impetus for these reforms arises from linkages between TRRA, award restructuring and reforms to the training system; and in the context of the Government's multicultural agenda.

The aim is to ensure that appropriate developments occur in the nature and operation of TRRA. Major issues in this regard include:

- rationalisation of TRRA classifications in the context of award restructuring and multiskilling;

- bridging courses to fill gaps in applicants' skills and to better integrate formal training with on-the-job skill formation in the TRRA process;

- a more competency-based approach to assessment on the basis of national skill standards

    this issue emphasises TRRA's dependence on developments in the training system and its dependence on industry and the National Training Board to develop skill standards. The pace of reform of TRRA will be linked to the pace of reform of the training system;

- the future role of TRRA in the operation of competency-based career paths arising from award restructuring, including linkages between TRRA and the National Board being established under the new Metals Award.

Action on these issues is only just beginning. However, one area where action is more advanced is the diversification of the trade testing infrastructure utilised by TRRA. We are moving away from a reliance on TAFE as the sole trade testing agent and establishing a diversified infrastructure based on TAFE, industry-based skill centres, enterprises, and private training providers.

The aims of this development are to further speed up the assessment process, minimise costs to applicants and facilitate the move to a more competency-based assessment process. Intrinsic to this development is a nationally consistent approach to TRRA assessment processes.

TRRA - Statistics 1989/90

Local Trades Committees

- considered 5998 applications
  - compared to 2716 in 1988/89
- granted 4082 certificates
- an overall success rate of 68.0%
- success rates for the various categories of applicants were:

. selected migrants (i.e. selected by CTCs or Technical Advisers)	98.4%
. non-selected migrants	45.2%
. ex-Australian Defence Force	76.8%
. Australian civilians	57.8%

Central Trades Committees

- considered 629 cases
  - compared to 749 in 1988/89

Technical Advisers

- assessed 8172 applications
  - compared to 7100 in 1988/89

SUMMARY OF DISCUSSIONS FOLLOWING GEOF HAWKE'S (UNPUBLISHED) PAPER: SKILLS STANDARDS IN THE METALS INDUSTRY

Although Geof Hawke's paper was not submitted for publication in the conference proceedings the following is a summary of discussions which followed it.

As with many of the discussion groups following workshop presentations the discussion focused significantly on the role and responsibilities of the new National Training Board as well as on standards. The issues proceeding from Geof Hawke's paper included the following points:

- how will training providers use standards? There will be no simple translation into curriculum/courses. Frequent review of standards is essential with new technology.
- if the standards are set by industry how can their quality and reliability be guaranteed? A problem may exist due to the different philosophies of the various stakeholders.
- what will the NTB attitude to the metals standard and given the advanced stage of the metals industry restructuring process, could the NTB have any significant impact on the establishment of standards in the metals industry?
- the preceding begs the question whether the NTB in fact has any real power. The only power is its potential to persuade the Commonwealth to refuse money to those who do not comply with standards. The States of course can also withhold accreditation.
- how will consistency in standards be assured for those classifications which overlap industries, e.g. crane operators, riggers, forklift drivers. Should therefore, the NTB be looking at occupation-specific standards where appropriate. These issues complicate the process of standards setting since several unions may encompass several occupational ranges.
- generic skill areas need to be identified. These transferable vocational skills can be used for a number of industrial sectors.
- the development by TAFE of modules based on standards will mean that TAFE can react quickly to industrial restructuring.

COMPETENCY-BASED APPROACHES TO TRAINING IN TAFE

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Research and Development

Introduction

This paper presents a synopsis of a national report on Competency-based Training in TAFE (Thomson et al. 1990). Readers interested in the more detailed picture should consult that report.

* * *

In May 1990 the TAFE National Centre for Research and Development was awarded a contract by the Commonwealth/State Training Advisory Committee (COSTAC) to prepare an inventory of competency-based courses and programs currently being conducted by TAFE in Australia.

The need for the inventory was closely linked to the outcomes of a Special Ministerial Conference on Training held in April of the previous year at which it was decided to accelerate a competency-based approach to training for all occupations affected by industry restructuring. COSTAC was given the responsibility for co-ordinating the implementation of this process which was to include the development of a strategy and timetable for implementation. The process was based upon a set of draft principles on competency-based training, endorsed by both the Commonwealth and State Ministers for Labour and further developed by COSTAC, as the first step towards a national policy on training.

One problem that faced COSTAC was the inadequacy of information relating to the implementation of competency-based methods of training within TAFE. In COSTAC's view the development of a strategy required a knowledge of the nature and extent of the competency-based training presently available. The inventory was seen both as a means of providing base-line data as well as the necessary foundation for future policy.

Early in 1990 many initiatives related to competency-based training were already taking place around Australia and the need for the inventory was becoming increasingly urgent. COSTAC stressed that it required the information as soon as possible and the Centre undertook to complete the work within 16 weeks.

From the beginning it was seen to be important to involve each TAFE system fully in the project both in terms of identifying courses for inclusion in the inventory, and in gathering detailed information about each course or program nominated.

Methodology

- *Planning and Organisation*

Much of the early planning and organisation was facilitated by the project's Steering Committee. The Committee had representatives from the COSTAC Working Party on Competency-based Training, the Confederation of Australian Industry, the TAFE system and the ACTU.

To achieve consistency across the TAFE sector in the collection of data about each course, it was necessary to adopt a number of special strategies. It was decided that the bulk of the data would be collected by face-to-face interviewing with telephone interviews used when this was not possible. Interviewing was a way of ensuring a uniformity in the understanding of the questions. By ensuring the interviewers adopt a common style with an agreed interpretation of what information each question was seeking to elicit, it was possible to be reasonably confident about the consistency of the data. Although the relatively short time at our disposal occasionally meant speed was of the essence, we were pleased by the overall quality of the information obtained. We believe that the use of a mailed questionnaire, where the respondents have no opportunity to ask for clarification or to check that they correctly understand the terms, would have been inappropriate in this exercise.

To further assist the interviewers, a set of project definitions was developed by the project team for use by each TAFE staff member involved in the interviewing process. This set of definitions was designed to be as consistent as possible with those currently used by the Commonwealth Department of Employment, Education and Training with input also provided by the Steering Committee and representatives from the State/Territory TAFE systems. A copy of the definitions was given to the interviewers and, in advance of each interview, to each respondent as a means of encouraging a common understanding about competency-based training and other key terms.

Standard guidelines for interviewers were also produced and issued to interviewers, again to enhance uniformity in the data gathering phase.

Finally, and most importantly, a two-day workshop was held in Melbourne before data gathering commenced. Each TAFE system (except South Australia) sent members of staff who would be involved in the project. In the case of South Australia, project team staff from the TAFE National Centre were available to conduct interviews once the courses were nominated by the South Australians.

At the workshop, participants were informed about the purpose of the project. The definitions and the interview schedule were explained to ensure interviewers adopted a uniform approach and appreciated the rationale behind each of the questions asked. The workshop also helped generate a commitment to the project which was important given the timetable and the (then) unknown extent of the data gathering exercise. Participants were also able to help shape the final form of the interview schedule during the workshop.

- *Identifying What Constitutes a Competency-based Course*

One important problem that had to be faced at the beginning of the project was how to identify a competency-based course or program. Although a number of courses might be fully competency-based according to whatever definition was developed, there was a strong possibility that many more would qualify as partly competency-based. For example, some courses could have a number, but not all, of the key features identified as competency-based.

A set of seven key characteristics was identified as typical of competency-based approaches. They were selected from a number of sets that were found in the literature (Foyster 1990, Kenyon & Hermann 1987, Norton et al 1980) as well as Federal Government discussion papers (DEET 1987, DOLAC 1988).

The choice was made by the COSTAC Steering Committee who considered the range of alternatives and chose those they believed were most relevant to the development of competency-based training in Australia, namely:

(i) a full list of the competencies in the TAFE component has been documented with specified standards and conditions for each competency;

(ii) students/trainees can be assessed for their competency at any time they (or their teachers or supervisors) believe they are ready;

(iii) training is provided in a modular format which relates to specific competencies;

(iv) assessment is based on the standards specified in the competency statements;

(v) assessment is, for the most part, based on actual demonstration of skills;

(vi) students/trainees can obtain exemption from part of the training (and move to the next unit of work) on the basis of demonstrating competence;

(vii) students/trainees results are recorded in terms of a statement of competencies.

At this stage of the work there was a great deal of uncertainty about the number of courses that might possess any or all of these characteristics. As our task was to produce a 'snapshot' of the country's competency-based training in 1990 it was important not to focus in too tightly on a very few 'pure' programs or to focus too widely and get an equally misleading picture. In order to achieve a broad general picture the following criteria were used when nominating a course as competency-based for the purpose of the inventory.

1. The course had to belong to a TAFE vocational stream (i.e. courses in Streams 2100-4500). Courses in the 'interest' or 'personal enrichment' stream were excluded.

2. The courses nominated were to be accredited (or were in the process of seeking accreditation). This criterion was designed to eliminate one-off courses lacking perhaps the rigour demanded by the accreditation process.

3. The courses nominated were to involve 200 hours or more of TAFE instruction, (i.e. entail a significant training commitment). This was designed to eliminate very short courses which may be based on only one or two subjects or modules.

4. The courses nominated were to include at least one subject or module which satisfied a minimum of three of the seven key competency-based characteristics, that is (i) to (vii) above, as identified by the Steering Committee. This criterion permitted inclusion of courses which had only some elements of a competency-based approach.

The task of nominating courses for the inventory was given to the State and Territory officers. They identified the 300 courses that make up the national inventory.

It should be noted that courses which are part of the Australian Traineeship System (ATS) are included in the inventory. All ATS courses were eligible to be nominated, however only 72 were seen as satisfying criteria 1 to 4.

- *Collecting the Data*

The interview schedule was designed to collect data from those TAFE college staff who were well informed about the courses. Both general course information and more detailed information on the competency-based elements were sought.

As previously indicated, members of the Steering Committee as well as the TAFE interviewers who attended the workshop contributed to the interview schedule's development. The instrument was piloted in Perth and Adelaide prior to its final adoption. In a face-to-face interview situation it took approximately an hour to complete the majority of questions with some additional time needed to obtain the general statistics.

The interview schedule was designed in two parts. Part A gathered general course information which included the proportion of modules* incorporating a competency-based approach. Part B sought to focus the respondent's attention on a typical competency-based module and explore issues of occupational analysis, design, standards and conditions, delivery, assessment, reporting and record-keeping, teacher and supervisor training and program evaluation. When identifying the typical module, respondents were asked to select, whenever possible, one that satisfied characteristics (iv) and (v). That is to say assessment was based on standards specified in the competency statement and was, for the most part, based on actual demonstration of skills.

A member of the TAFE National Centre's team was assigned as a contact person for each State/Territory to help monitor progress, provide consistent advice and ultimately provide to each State and Territory an overall perspective generated from the national data in the preparation of each separate report.

An important qualification in regard to the data that follows, concerns omissions and inclusions. Despite the precautions taken, it is inevitable that some differences in interpretation at a State or Territory level have meant that a course included by one system may have been excluded by another. In general however, this problem relates to courses with a limited number of competency-based elements and should not have any great effect on the overall interpretations of the data presented.

- *Data Analysis*

Data were analysed using Statistical Analysis System (SAS) software, with frequency tables being generated by field of study of tertiary education courses to provide an initial overview in a spread-sheet format. The breakdown of the field of study shows where resources have been directed until now. The field of study classification is of assistance in interpreting data about TAFE courses. The main purpose of the classification is to ensure that courses with the same or similar vocational emphasis are reliably classified within the same 'broad field of study'. For the purposes of reporting statistics, courses which have a similarity in terms of the vocational field to which the courses relate may therefore be grouped together.

The classification has been developed using a vocational emphasis wherever possible; that is to say fields of study groupings were determined by the similarity of potential vocations rather than the similarity of content. (DEET 1990a)

The Extent of Current Provision of Competency-based Courses in TAFE

It is not possible to be precise about the number of competency-based courses currently being run by TAFE in Australia. Not only is there some difficulty in being sure that a particular course meets the criteria laid down, but also the total number of courses running at any particular time is problematic. Many courses are subject to student demand and teacher availability, and this fluctuates during the year. Figure 1 provides our best estimate of the situation

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- The terms 'subject' and 'module' are variously used to describe the learning elements of competency-based courses in the different States and Territories. To overcome the clumsy 'subject/module' form which covers this different use, the term 'module' has been used to include both terms in the remainder of the National Report. State and Territory reports have used the term of their choice.

in the first half of 1990. The figure shows that nationally, 300 of 2329 TAFE courses; that is, around 13% (other than enrichment courses) have some competency-based elements.

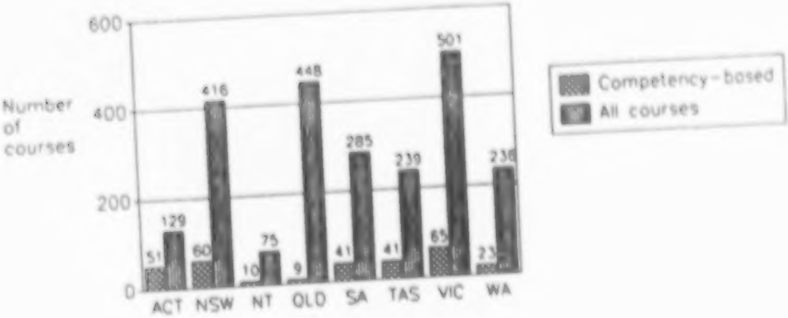

Figure 1 - Estimated level of competency-based training in States and Territories

The survey has shown that a substantial number of competency-based courses are to be found throughout Australia. However Figure 2 indicates that the geographical distribution of reported courses is not uniform. The majority of responses come from the south-eastern parts of Australia. The ACT and Tasmania in particular, have reported more courses than might be expected on the basis of population, while Queensland has reported fewer courses than might have been expected.

The inclusion of ATS courses did not have a dramatic effect on the results. Overall ATS courses were somewhat less competency-based than the others. While there was more industry involvement and more effective reporting of results with the traineeships, the non-traineeship courses present a better picture when it comes to the standards and conditions associated with delivery and assessment of programs.

It is planned that a separate report will be provided on the competency-based elements of traineeships at a later date.

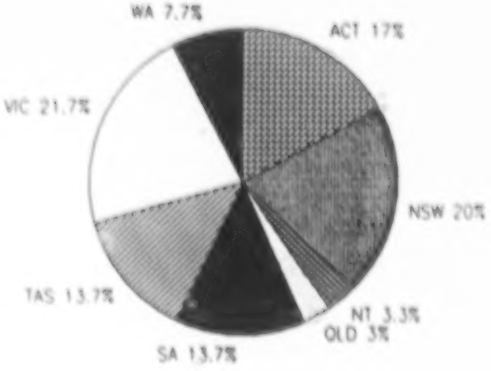

Figure 2 - Distribution of courses reported

- *Growth in CBT Course Provision in TAFE*

Our work showed that the competency-based approach is spreading and growing quite rapidly; the number of courses using the approach appears to have grown ten-fold during the 1980s. This growth is shown in the following graph (Figure 3).

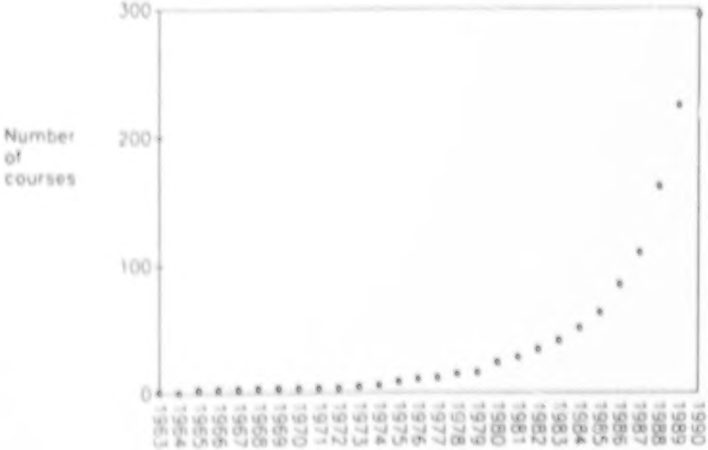

Figure 3 - Year of origin of competency-based courses

This growth, however, has not been uniform. It tends to be concentrated in the fields of engineering and business studies (Figure 4) and at operative and certificate level courses (Figure 5).

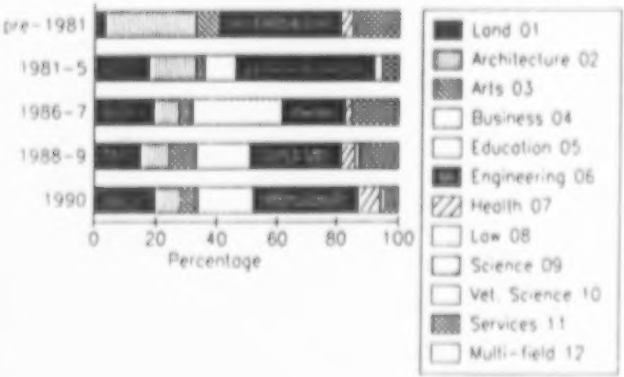

Figure 4 - Relative frequency of new CBT courses in various periods

At this relatively early stage in the spread of competency-based approaches to training, it is not possible from the data available, to assert that the variations in the rate of growth are due to relative saturation in particular fields of study. Nor can we say whether growth of CBT in particular fields of study is due to its current popularity, influence of word-of-mouth or demonstrated success. A further investigation into the reasons for the adoption of the competency-based approach in the various fields would be a logical consequence of the present study.

But one could speculate that at present, the pattern of adoption within a given State or Territory (and perhaps to a lesser extent within a particular field of study) is dependent not upon the suitability of the approach to particular fields of study, but rather upon the extent to which the benefits of competency-based training have been promoted by different individuals and groups. It will only be when the rate of growth has declined considerably that we could expect a near-stable pattern of adoption to reflect the relative suitability of competency-based training to individual fields of study.

Figure 5 shows the competency-based approach has not yet reached all streams in TAFE. For instance, it is interesting to note that no courses from the basic employment skills and educational preparation areas (Streams 2100 and 2200) found their way into the inventory. This is despite the fact that these two streams account for about a quarter of all students in Streams 2100 to 4500 (DEET 1990b).

There is a heavy concentration on operative and certificate courses both trade and non-trade. These account for over 80% of all courses.

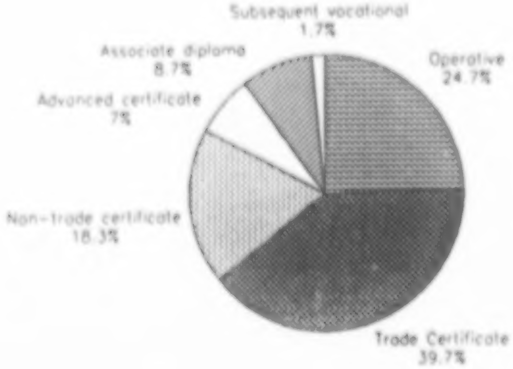

Figure 5 - Competency-based programs in TAFE streams

- *Statements of Competence*

It is hard to imagine a competency-based program which does not formally list the competencies it delivers. Furthermore, it is to be hoped that the competencies will have standards stated precisely (or at least as a mixture of 'precisely' and 'generally'). And it would be expected that the conditions applying when the competency is being performed are also stated. Yet less than half the modules produced 'Yes' responses to each of the three questions that were seeking this information. In other words there is a relatively poor match between many courses and these competency-based characteristics.

Table 1 - Number of cases which possess a list of competencies, with standards stated precisely (or as a mixture of precisely and generally), and standards are accompanied by statements of conditions

STATE			TOTAL
ACT	18	(35.3%)	51
NSW	34	(56.7%)	60
NT	2	(20.0%)	10
QLD	2	(22.2%)	9
SA	7	(17.1%)	41
TAS	17	(41.5%)	41
VIC	50	(76.9%)	65
WA	8	(34.8%)	23
AUSTRALIA	138	(46.0%)	300

- *Industry Involvement in Competency-based Training*

Figure 6 shows there was a high level of industry involvement in TAFE course design.

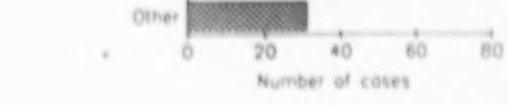

Figure 6 - Relative extent to which various industry representatives were used in TAFE course design over the 300 courses
(Note: Multiple responses were possible)

However, despite the considerable importance placed on the integration of on-the-job and off-the-job training components in CBT policy statements, industry involvement in course design does not necessarily follow through into other areas. For example, respondents reported synchronisation of on- and off-the-job training in only 41% on cases (Table 2).

Table 2 - Number of cases in which on- and off-job training synchronised

STATE			TOTAL
ACT	6	(11.8%)	51
NSW	28	(46.7%)	60
NT	4	(40.0%)	10
QLD	3	(33.3%)	9
SA	24	(58.3%)	41
TAS	24	(58.3%)	41
VIC	22	(33.8%)	65
WA	11	(47.8%)	23
AUSTRALIA	122	(40.7%)	300

This level of on- and off-job synchronisation can be linked with the level of formal communication between TAFE teachers and on-the-job trainers; only just over half of the TAFE teachers reported contacts as 'frequent', where frequent meant 'at least once a month'. Figure 7 shows the extent of variations.

It is disappointing to note the low level of coordination and the relative infrequency of formal contact between the two training partners. However, it should be appreciated that the appropriate frequency of contact between on-job and off-job instructors is dependent upon a variety of factors. For example, more frequent contact would be required for a new course than for a long-established one. Questions concerning the extent to which the efficiency of the training might be improved by better coordination must be left for a later study.

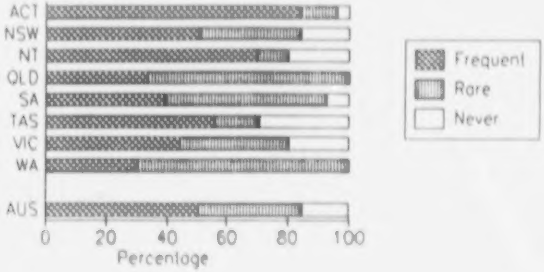

Figure 7 - Frequency of communication between teachers and trainers

- *Staff Development*

It also needs to be pointed out that it is one thing to affirm that a course is described in terms of competencies which incorporate standards and conditions, but quite another to claim that these descriptions possess clarity. We do not know whether teachers understand what is expected of them in a competency-based program or whether they are able to apply the standards and conditions that are specified. Part of this uncertainty over teachers' understanding of competency-based training is related to the low level of staff development that is occurring. Table 3 shows that only 15% of TAFE instructors have received any training in CBT.

Table 3 - Number of cases in which TAFE instructors are required to have staff development in competency-based approaches

STATE			TOTAL
ACT	1	(2.0%)	51
NSW	16	(26.7%)	60
NT	2	(20.0%)	10
QLD	3	(33.3%)	9
SA	7	(17.1%)	41
TAS	2	(4.9%)	41
VIC	10	(15.4%)	65
WA	3	(13.0%)	23
AUSTRALIA	44	(14.7%)	300

- *Provision for Self-paced Learning*

Another area in which the survey produced less than encouraging results was that associated with self-paced learning. Courses which can be:

- begun at different times;
- completed at different times; and
- for which exemption is available on demonstration of competencies;

conform with the principles of self-paced learning. Yet only one-third of the courses in the inventory possess all three of these attributes (Table 4).

Table 4 - Number of courses with modules that can be begun at different times, completed at different times, and for which exemption is available on demonstration of competencies

STATE		TOTAL
ACT	4 (7.8%)	51
NSW	11 (18.3%)	60
NT	4 (40.0%)	10
QLD	0 (0.0%)	9
SA	13 (31.7%)	41
TAS	27 (65.9%)	41
VIC	35 (53.9%)	65
WA	8 (34.8%)	23
AUSTRALIA	102 (34.0%)	300

- *Assessment*

The concerns about the availability of self-paced learning in competency-based programs are related to wider concerns about assessment procedures. While Figure 8 is encouraging since it indicates assessment was available at any time in 44% of cases, this must be contrasted with an almost equal number of cases (46%) in which assessment was only available at the end of a period of study.

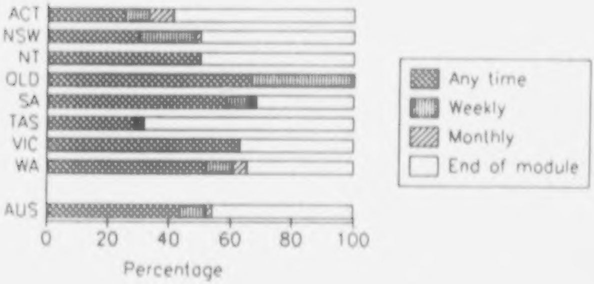

Figure 8 - Frequency of assessment opportunities

Other practices gave cause for concern in that they showed there was a wide range of opinion as to how assessment should be performed. For example, in only just over one-half of the cases was it necessary to achieve all the competencies listed for a course in order to pass that course (Table 5).

Table 5 - Number of cases in which achievement of all competencies required for pass

STATE			TOTAL
ACT	28	(54.9%)	51
NSW	25	(41.7%)	60
NT	6	(60.0%)	10
QLD	4	(44.4%)	9
SA	20	(48.8%)	41
TAS	24	(58.5%)	41
VIC	60	(92.3%)	65
WA	4	(17.4%)	23
AUSTRALIA	171	(57.0%)	300

Furthermore, in one-half of the courses, performance above the specified standard was recognised through the use of grades such as 'pass', 'credit' and 'distinction' (Table 6).

Table 6 - Number of cases in which performance above the specified standard is recognised

STATE			TOTAL
ACT	33	(64.7%)	51
NSW	41	(68.3%)	60
NT	5	(50.0%)	10
QLD	1	(11.1%)	9
SA	28	(68.3%)	41
TAS	4	(9.8%)	41
VIC	25	(38.5%)	65
WA	13	(56.5%)	23
AUSTRALIA	150	(50.0%)	300

But, perhaps most alarming of all, was the 32% of courses which reported that above standard work in one skill area could compensate for below standard work in another (Table 7).

Such a practice calls into question an underlying principle of the competency-based approach which requires a competency to be mastered before proceeding to the next segment of training. Reliable and valid assessment procedures are a way of ensuring quality in programs but, in the current CBT programs, all manner of things seem to be occurring in the name of assessment. Improved assessment procedures are much needed.

- *Community Understanding and the Pace of Change of CBT*

At this point I think it should be said that the highly objective nature of what has been said so far should not be allowed to give the impression that little of a subjective nature was gained from the project. In fact, the data gathering process revealed two most important impressions about competency-based approaches in TAFE. The first of these is that there is no general agreement among members of the TAFE community about what is meant by competency-based training. Competency-based training means different things to different people and these differences exist both within and between the States and Territories. Secondly, the current changes arising from government initiatives in industry restructuring are, in turn, accelerating the move towards more competency-based training. However, these changes are occurring so fast that few people have been able to fully assimilate what is happening. Therefore the tendency is for a small number of knowledgeable people to drive the changes and leave the majority behind.

Table 7 - Number of cases in which above and below standard work can be combined to achieve standard

STATE		TOTAL
ACT	26 (51.0%)	51
NSW	25 (41.7%)	60
NT	1 (10.0%)	10
QLD	3 (33.3%)	9
SA	21 (51.2%)	41
TAS	2 (4.9%)	41
VIC	6 (9.2%)	65
WA	12 (52.2%)	23
AUSTRALIA	96 (32.0%)	300

- *Ways to Remedy the Present Deficiencies in CBT in Australia*

While there were a number of positive aspects of TAFE's work in competency-based training, a major purpose of the project was to identify deficiencies so that steps could be taken to bring about improvements.

Many of the remedies for the present deficiencies in competency-based training are reasonably self-evident. Five of the most important steps would be:

- the development of a national policy on competency-based training and the vigorous marketing of that policy to all sectors of the training community;
- the specification of standards and conditions to accompany the competency statements for courses across all TAFE fields of study and streams;

- the development of valid and reliable assessment procedures to assess the competencies once they have been specified in terms of standards and conditions;

- the mounting of staff development programs for both on- and off-the-job providers to improve the quality of competency-based training; and

- the creation of an on-going evaluation program to provide support to those delivering training both on- and off-the-job.

There is a great deal of work to be done in these areas and implementing each step will have significant resource implications.

References

DEET, 1987. Department of Employment, Education and Training. Standards-Based Trade Training: A discussion paper. Canberra: AGPS.

DEET, 1990a. Department of Employment, Education and Training. Field of Study Classification of Tertiary Education Courses. Canberra: AGPS.

DEET, 1990b. Department of Employment, Education and Training. Selected TAFE Statistics 1988. Canberra: AGPS.

DOLAC, 1988. Departments of Labour Advisory Committee. A Discussion Paper on Competency-Based Trade Training. Canberra: Department of Employment Education and Training.

Foyster, J. (1990). Getting to Grips with Competency-Based Training and Assessment. Adelaide: TAFE National Centre for Research and Development.

Kenyon, B. & Hermann, G. (1987). Competency-Based Vocational Education. London: Further Education Unit.

Norton, R.E. et. al. (1980). Develop and Implement a Competency-Based Education Program. Columbus: The Ohio State University.

Thomson, P. et. al. (1990). Competency-Based Training in TAFE. Adelaide: TAFE National Centre for Research and Development.

SUMMARY OF DISCUSSIONS FOLLOWING PETER THOMSON'S PAPER: COMPETENCY-BASED APPROACHES TO TRAINING IN TAFE

The discussion following the workshop presentation on CBT focused briefly on the process of CBT and the implication for its implementation. The major points discussed were:

- there presently exist many different understandings of the term. There is therefore a need for a nationally accepted term. Furthermore, how is the notion of CBT sold to both industry and students?
- how is excellence recognised in CBT? Concern was expressed about the provision of pass/fail grading.
- the importance of staff development in the implementation of CBT: attitude changes by staff towards the teaching of CBT are crucial to its success. As for industry training, those who would be best suited to undertake CBT are caught up in operational tasks.
- too often assessment is an afterthought: it must be an integral part of CBT. Assessment must take account of personal qualities.
- development of competencies must be undertaken by partnerships between TAFE and industry. There may be a danger in narrowing the training to teaching/assessing technical competencies only. Other skills such as communications, group techniques, and problem-solving are important workplace skills.

GRADED CRITERION REFERENCED ASSESSMENT IN COMPETENCY-BASED TRAINING

BRIEF PRESENTER: John Van de Graaff
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The focus of this paper is on the issue of documenting student achievement in a competency-based training and assessment (CBT&A) scheme. It derives from a research project into graded criterion referenced assessment, in which it was proposed that grading student achievement in a competency-based system is both feasible and worthwhile. This proposition challenges the 'binary model' (the Pass/Fail; either you can do or you cannot) concept that most people involved in CBT&A see as implicit in that system. That concept denies the reality of the workplace and of performance achievement in education. Glass states the truism:

> For most skills and performances one can reasonably imagine a continuum stretching from 'absence of the skill' to 'conspicuous excellence.
>
> (Glass 1978, p.250)

In limited areas of 'training' the binary model may be relevant, but its application across the board to education will deny to all parties involved in the educational process vital information, and to students the stimulus to strive for excellence.

CBT&A is based on the premise that performance standards for expected student exit skills and behaviour can be quite accurately stated and generated for an appropriate industry level. It must follow that standards for higher performance levels on the continuum can also be generated; that is, if the terms credit and distinction were also to be employed, then these would be defined not by percentage marks (associated with the disallowed norm referencing approach) but by performance descriptors.

But grading student performance is not the only outcome advocated in this paper. During the learning process a great deal of information can be gathered about students - information which does not necessarily have to result in grading to be useful to, for instance, employers. Such information concerns the skills, knowledge and attitudes (SKA) which are difficult to describe with any degree of precision, let alone describe in terms of behavioural objectives. Yet it is this information which employers ask about when they contact a trade teacher and say: 'I know Tommy passed his modules, but what is he really like? What can he really do? Is he good at ... ?' Therefore, in the context of providing graded results on credentials, I believe we should also consider how this other, additional information about students can be provided to those with a legitimate interest and need for it.

Consideration of the above points raises the types of issues mentioned in the next paragraph. In this paper the first two of those issues are explored.

- *Issues in Graded Criterion-Referenced Assessment*
  - Grading student performance: the reasons;
  - Credentialling information: grading criteria, credentialling standards and display of information;
  - Assessment/record-keeping strategies and instruments;
  - Curriculum development and documentation.
- *Grading Student Performance: The Reasons*

Questions that need to be asked at the outset are:

- Who needs/benefits from grading?
- Are there disadvantages to grading?
- What aspects of student performance should be graded?

Who needs/benefits from grading?

Those who could benefit from grading include the following:

- Students who are motivated to strive for excellence (unless intrinsic motivation is the driving force - which I do not see as a realistic option). Feedback from teachers consistently reveals that students want to know about their performance relative to others;
- Teachers in terms of teaching satisfaction, in being able to reward those who put in extra effort, or to give recognition to those who have special capabilities. Teachers, especially in the trade areas, are regularly asked to advise employers on abilities/characteristics of students not evident in credentialling information;
- Employers in terms of employee selection. It is obvious that employers want information on the characteristics that differentiate prospective employees. How best to gather and present that information is less obvious;
- Further education institutions in terms of student selection for scarce places;
- The vocational training authority in terms of its need to identify students who have excelled in order to:
  - award wage increases/apprenticeship period reductions;
  - award prizes (e.g. apprentice of the year) in order to promote excellence.

The authority finds itself in an ambivalent position. On the one hand it completely endorsed CBT&A and the binary assessment model; on the other it needs to promote excellence by motivating students to strive for rewards in terms of awards, money and/or reduced apprenticeship times. The latter obviously requires some type of differentiation between student performance outcomes.

Are there disadvantages to grading?

Some would assert that grading leads to competition, pressures and inequity concepts which are educationally unsound. In a vocationally oriented education system I believe we owe it to students and to the community we serve, to introduce into the learning environment the conditions most relevant to industry. The most abiding characteristic of the workplace is competitiveness in gaining and retaining employment.

Grading in the past (pre-CBT&A) served a very important purpose and the need for identifying student performance capabilities in terms of special skills, aptitudes, diligence and personality factors will remain. What needs to be questioned about past grading practices is the definition of a pass grade as equalling an arbitrary figure of something like 50%. This percentage pass mark and those associated with credit and distinction have, of course, been very much linked to the practice of norm-referencing, an approach very much in disfavour with those advocating CBT&A. The fact that norm-referencing has a function in determining criteria or standards in CBT&A, surprises many who link it solely with the role of student ranking without reference to specific achievement of competency levels. If that ranking were to be achieved, so that known performance levels were associated with the different grades (i.e. the norms were described in performance terms), then it would be possible to determine from credentials, the performances a student should be capable of. Therefore, in setting performance standards for different grading levels, reference to the types of skills and behaviours encountered or expected from the 'norms' at those levels in industry/community would have been made.

The current CBT&A revolution is quite rightly trying to address this issue by attempting to define competence in descriptive or qualitative, rather than numerical or quantitative terms. But in so doing it has 'thrown the baby out with the bathwater' by eliminating grading or discrimination between students on the basis of quality or performance. Discriminating between students in course outcomes can occur on a quantitative basis by the completion of additional modules in a self-paced delivery system. This addresses only one factor in what must be a range of attributes of students, but it is of course the easiest to measure. More qualitative measures, such as those listed further on in this paper under Grading Criteria, can be important outcomes for students and other potential users of this information. These must merit further research and development to devise suitable strategies for incorporation in the educational program.

What aspects of student performance should be graded?

Grading should be applied where appropriate. For example, I cannot see a purpose for it in Occupational Health and Safety modules, where the nature of the learning outcomes does not permit special student initiatives or efforts. Assessment of student performance within a module may be comprised of pass/fail segments complemented by segments with a grading potential. Advice from curriculum advisory bodies may be pertinent when deciding what to grade.

- *Credentialling Information: Grading Criteria, Credentialling Standards and Display of Information*

This issue has been addressed by a number of authors, including Rumsey and Hawke (1988, p.25-27) in the section Documenting Achievement, Foyster (1990, p.49-50) very briefly and, in more detail, by Brindley (1989, p.91-110). It is a crucial issue, because any training and assessment system is validated by the use made of its outcome, of which the student credentials should be an important part. If these credentials lack credibility, or lack information appropriate to the intended audience, then, potentially, student time and effort and educational resources have been wasted.

Grading criteria

In the plethora of articles on CBT&A there seems to be an unquestioned assumption that student achievement will be recorded only in terms of satisfying required performance standards in a pass/fail mode. Learning For Mastery (LFM) is the underlying strategy, with all its implications of self-paced delivery, reinstruction and retesting, and unlimited learning time for the student. Resource implications in the 'real world' limit this ideal somewhat, and generally students need to achieve within restrictions of time as well as inadequate resourcing. An important criterion, especially from employers' viewpoints, will be the student's performance speed, shown either by early completion of modules/course or completion of extra modules. The current credentialling system should be able to display this information. The potential user of that information may assume that the student with extra modules credited on the record has more ability, or diligence, or both. But the critical factor of determining potential for higher achievement in any one area is not shown. This information may presumably be extracted at interview and during the employee's probation period. The implication is therefore that credentials are ignored for all practical purposes.

But why are credentials issued? Lazarus comments:

> That is precisely the purpose of awarding credentials, of course - to help people determine others' qualifications without a lot of detailed investigation. . . . Mechanisms for awarding credentials, including competency tests, are necessarily insensitive to people's individual strengths and weaknesses. The price of convenience in ascertaining someone's qualifications by way of a credential is almost total ignorance of those same qualifications. There is no contradiction involved. One can ask for a little information, or a lot.
>
> (Lazarus 1981, p.176)

Another perspective is provided by Burke (1989), who proposes:

> Only some activities are properly described by a binary model - either you can do it or you cannot. Others are characterised by gradations in performance. A competence model suggests that progression lies mainly in increasing the number of competencies rather than improving those you have already got. But to be a Jack of all trades is to be a master of none.

If grading is accepted as a strategy, what criteria could be used to define the grading levels? Or better still, what characteristics of student performance can be reported on? Some options are listed:

- Product quality, described by precision, aesthetic appeal, etc; process quality described by behaviour aspects, utilisation of techniques, etc.;
- Speed of operation/quantity (potential) of production;
- Degree of supervision required;
- Concept-formation; logic; time organisation; decision-making; problem-solving abilities, showing initiative etc. These qualities derive from the new technologies, which are designed more around autonomous work groups than the old approach of infinite division of labour;
- Personal effectiveness (interpersonal skills) required in the workplace to deal with co-workers, managers and customers;
- Organisation and planning of work;
- SOLO classification of learning outcomes. Although proposed as a tool for any of the following: curriculum planning; assessing teacher effectiveness; guide to classroom questioning techniques and assessing teachers' decision-making strategies (Killen 1983), it could conceivably be developed into a summative classification system for credentialling purposes.

Credentialling Standards

At what level will competency standards be set? The National Training Board devolves that responsibility to industry and the education system. Will those standards be high enough to stretch all students in their capabilities? It seems unlikely. Unlimited learning time is not available and educational institutions need to ensure a viable student pass rate for their own survival, and this will always mean that performance standards will be set at a level which ensures this pass rate and which, therefore, can be exceeded by a considerable number of students. But will those students attempt to exceed the stated standards? In terms of performance speed, most probably. In terms of other performance aspects which will not attract credentialling rewards for extra effort, it seems unlikely except for those who are intrinsically motivated.

What descriptors or coding are to be used on the credentialling document? Traditionally the terms pass, credit and distinction represented differential performances based on a marking system, therefore different levels of marks constituted the criteria. These same terms could be used and presumably could be linked with differing competency levels which are described not by marks but by statements of performance and standards. If a break with tradition is envisaged, than other terms could be employed. A range of options could include the following:

- Pass, credit, distinction and perhaps high distinction. This would be in line with descriptors used in tertiary systems.
- Pass and a pass with merit. This two-tiered system has been proposed as a simplified model and a break with tradition.
- Competency pass indicator as currently in use, together with an additional information sheet consisting of a summative profile, showing student performance outcomes against a range of skills, behaviours, and possibly personal attributes.
- No pass statement at all, only a summative profile chart which would show a record of student competencies and possibly personal attributes. The profile items would need to be constructed such that potential users (e.g. employers and further education institutions) could readily and with reasonable certainty interpret relevant information. Students would know, and the chart should indicate the performance levels required for particular purposes.

Display of information

The grading or additional information concept in CBT&A is referred to and in some cases explored in some detail by a number of authors. Thomson (1986,p.139-155) has given examples of the profiling approach used by the City and Guilds of London Institute and the Manpower Services Commission. Brindley (1989,p.91-104) reports on the Australian and English moves towards meeting the expressed needs of the community for more informative credentialling. He refers to the adoption by the Royal Society of the Arts in the United Kingdom of profiles and records of achievement to portray learner achievement. Docking (1987) proposed a reporting system which aggregates student performance information, with due regard for 'essential' learning objectives, to produce a graded result. Rumsey and Hawke (1988) refer to grading, in the credentialling part of the document, but without referring to implementation strategies. Lazarus (1981) strongly advocates discrimination between graduating student abilities. The ACT Institute of TAFE (1989) provides examples of strategies for criterion-referenced grading, including reference to competency profiles, but no proposal for displaying this information on credentials. On-going wide ranging research into this subject is reported on in the publications by the Further Education Unit (UK) on Profiling (1982, 1985, 1987).

One of the major objections to the use of profile information systems seems to be the perception that it is arduous to generate, and that potential users of credentials will not be able to, or want to interpret the information. Obviously, the amount of information to be supplied must match the audience's perception of their needs and the ability of the teachers to obtain and record the information. Commitment to a profiling model could only be achieved if teachers were supplied with appropriate professional development which convinced them of the obvious benefits of the model and a practical strategy which could be implemented within a reasonable timeframe. Proposed 'Records of Achievement' may include summative profiles, which are condensed from the more detailed formative profiles compiled during the learning period, together with some types of achievement statements. It should be possible to construct such an information source to suit the intended audience whilst acknowledging the fact that any attempt to condense information will inevitably lead to a deterioration of that information. A balance must be struck between appropriate formatting of the information for a specified audience and the retention of the essential characteristics of the information gathered initially.

Another objection concerns the concept of 'subjectivity': profile information is too subjective to be presented as final credentialling information. Options listed earlier in the section on credentialling standards included a combination of a summative profile and a computer printout of modules passed as currently provided to students.

Conclusion

In conclusion, credentialling information for students can be displayed on a continuum from the ultimately bland 'Pass only' statement on a computer printout of course modules, through various combinations of this competency pass statement and additional information sheets (whether they be profiles or other organised statements), to a 'Profile only' statement. Factors to be taken into account when making this decision should include the needs of possible users of the information, both in the amount and formatting aspects, as well as the ability of the teaching staff and administration to provide the information.

References

ACT Institute of TAFE/Margaret Smith-Project Co-ordinator. (1989). *Induction Manual for Teachers in the Australian Traineeship System*. Canberra: ACT Institute of TAFE.

Brindley, Geoff. (1989). *Assessing Achievement in the Learner Centred Curriculum*. Sydney, NSW: National Centre for English Language Teaching and Research, Macquarie University.

Burke, John, (ed.) (1989). *Competency-Based Education and Training*. London: The Falmer Press.

Foyster, John. (1990). *Getting to Grips with Competency-Based Training and Assessment*. Adelaide: TAFE National Centre for Research and Development.

Further Education Unit (UK). (1987). *Profiles in Context*. London.

Further Education Unit (UK). (1985). *Profiles in Action.* London.

Further Education Curriculum Review and Development Unit (UK). (1982). *Profiles: A review of issues and practice in the use and development of student profiles.* London.

Glass, Gene V. (1978). Standards and criteria. *Journal of Educational Measurement,* 15 (4), 237-261.

Killen, L. Roy. (1983). *Application of the SOLO Taxonamy in Technical and Further Education.* Extended Essay presented in partial fulfilment of the requirements for the degree of Master of Educational Studies. The University of Newcastle, Newcastle, NSW.

Lazarus, Mitchell. (1981). *Goodbye to Excellence: A critical look at minimum competency testing.* Colorado: Westview Press.

National Training Board. (1990). *Setting National Skill Standards.* Canberra: National Training Board.

Rumsey D.J. & Hawke G.A. (1988). *Competency-Based Testing: A TAFE approach.* Sydney: NSW Department of TAFE.

Thomson, Peter. (1986). *Student Assessment: A handbook for TAFE teachers.* Melbourne: Nelson Wadsworth.

COMPETENCY-BASED VOCATIONAL EDUCATION: IMPLICATIONS FOR TEACHER EDUCATION

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Reviews of competency-based vocational programs in operation make it apparent that competency-based instruction displays a good deal of potential for training in both industry and TAFE in a variety of occupational areas. The CBVE approach appears especially useful in training situations where trainees have to attain a smaller number of specific and job-related competencies. The approach is doubly useful where trainees are widely dissimilar with regard to ability and previous and concurrent industrial experience. The self-pacing aspect, moreover, appears to allow opportunities for development of characteristics of independence and self-reliance which trainees generally enjoy. In addition it allows the introduction of flexible attendance and enrolment patterns which employers and mature students appreciate.

It is also apparent, however, that the CBVE approach, has a number of inherent problems and potential pitfalls, and the indications are that it will only fulfil its potential in training and vocational education if it is carefully and effectively implemented. A number of implications can therefore be identified for TAFE and other training institutions considering implementing such a system. One of these concerns the need for effective initial and ongoing teacher education.

In relation to initial teacher preparation, it is clear that if teachers are to work successfully in a CBVE program they will need a thorough grounding in the principles which underlie CBVE as well as a good understanding of the procedures necessary for its effective implementation. This would include an understanding of occupational analysis procedures such as DACUM, the nature and scope of competencies in a range of occupational areas as well as an understanding of the accepted principles of self-paced learning.

Furthermore, because of the nature of most CBVE programs, teachers who can develop adequate resources and learning materials need to be trained. Given the central position allotted to these materials in CBVE, teachers must learn how to produce written materials which are clear and understandable to the majority of readers, as well as audio-visual materials which are properly co-ordinated and related to the written materials. In addition, the learning materials should incorporate the well established principles of self-paced learning, such as:

- the need for small steps;
- the need to match learning activities and objectives;
- the need for continuous student response;

- the need for immediate and regular feedback.

This author has noted that failure to adequately observe all of these principles has led to some breaking down of the system in some CBVE programs. In addition, Harris et al. in their review of a CBVE program in South Australia from 1983 to 1985, noted that student complaints about learning materials and audio-visual resources had become common by 1985 (1987, ch.4). These authors concluded that for the system to improve, learning materials, and especially audio-visual materials would need to be polished and more adequately co-ordinated to ensure clarity, and increase student interest and challenge. (1987, p.124). This requirement should be kept in mind by any institution intending to introduce CBVE programs and by any institution preparing teachers to work in them.

In addition, successful introduction and implementation of a CBVE program requires, on the part of teachers, a real commitment to the values and worth of the competency-based approach. This objective might be achieved in part, by having teachers develop competence in the development of CBVE programs and materials. It might also be achieved by the use of videos and films showing CBVE in action. It might be more effectively achieved, however, by the teachers themselves within their teacher training programs being taught wholly or partially using the competency-based mode. Performance-based teacher education modules have been developed by the National Center for Research in Vocational Education in Columbus, Ohio, (1982) and these are quite well known. Some community colleges with CBVE programs, such as Holland College in Canada and North East Metro Technical College in Minnesota, have developed their own in-house performance-based teacher education programs. A more sophisticated way may be through computer-assisted instruction using programs such as Performance-Based Instructional Design developed by David Pucel (1989) at the University of Minnesota.

A further implication is the need for adequate preparation and on-going staff development for existing teachers. The difficulties and frustration which some teachers experience working with CBVE have been noted elsewhere. In relation to the 'growing pains' experienced by some teachers, Bird reports that at Richmond College of TAFE, when the system was introduced, some teachers experienced feelings of insecurity because they felt that their roles were jeopardised by the new system, and they did not have the capacity to examine the system objectively (1982, p.20). Harris et al observed that, by early 1986 many teachers working in the South Australian program reported that they were not personally satisfied teaching CBVE (1987, p.70). They reported feelings of 'powerlessness', 'frustration' and dissatisfaction' (1987, p.79-81). These authors also noted that while student satisfaction with most aspects of the program remained high, the most frequent complaints concerned the unavailability of staff for guidance and testing and inconsistency in marking (1987.ch4). Clearly some investment in computer-managed learning (including testing and recording) would tend to alleviate some of these problems. Nevertheless these authors concluded that 'continuing staff development and team building activities [should] be undertaken with both teaching staff and administrators to improve morale and motivation'. (1987, p.124).

Perhaps the most telling point concerning CBVE can be drawn from a conclusion already made about performance-based teacher education. Phyllis Caldwell, following a review of competency-based teacher education programs for adult educators, concluded that while 'it is relatively easy to develop lists of competencies, [it is] very time consuming and expensive to develop the training and evaluation packages based on these competencies'. (In Grabowski, et al 1981, p.7). This conclusion is just as valid and just as significant for the preparation of teachers as it is for the preparation of the CBVE programs themselves.

References and Further Reading

Black, W.E. (1982). *Handbook for Developing Competency-Based TrainingE Programs*. Englewood Cliffs, New Jersey: Prentice-Hall.

Bird, M. (1982). The quite revolution: self-paced apprentice training. *Training and Development in Australia*, 9(2).

Dawkins, J.S. (1989). *Improving Australia's Training System.* Canberra: Australian Government Publishing Service.

DOLAC Working Party on Competency-Based Trade Training. (1988). Report. Canberra: Australian Government Publishing Service.

Grabowski, S.M. et al. (1981). *Preparing Educators of Adults*. San Fransisco: Jossey-Bass.

Harris, R., Barnes, G., Haines, B. & Hobart, B. (1985). *Competency-Based Vocational Education: An evaluation.* Adelaide: TAFE National Centre for Research and Development.

Hermann, G. (1990). *Developing Occupational Courses*. Sydney, Macquarie University, Centre for Research in Education and Work.

Horne, R. (1982). *Guide for Implementing Competency-Based Education in Vocational Programs*. Glenn Allen, VA: Vocational Curriculum Centre.

In STEP: An Approach to Performance-Based at Holland College. (1983). Holland College, 3rd.ed.

Kasworm, C. (1980). *Competency-Based Adult Education: A challenge for the 80s*. Columbus, Ohio: ERIC Clearinghouse for Adult, Career and Vocational Education, Centre for Research in Vocational Education.

Knaak, W.C. (1977). *Competency-Based Vocational Education: A review.* Columbus, Ohio: ERIC Clearinghouse on Career Education, Centre for Vocational Education.

Macdonald, C. (1984). *Self-Learning*. Adelaide: TAFE National Centre for Research and Development.

National Centre for Research in Vocational Education. (1982). *Performance-Based Teacher Education Modules, Category K: Implementing competency-based education (CBE) K1 to K6*. Columbus, Ohio.

Pearson, M. (1983). Approaches to individualising instruction: a review. *Higher Education Research and Development*, 2, 155-181.

Pucell, D.J. (1989) *Performance-based Instructional Design*. CAI Program. IBM Version. St. Paul, MN: Performance Training Systems Inc.

TAFE Restructuring (September 1989). The Management Review: NSW Education Portfolio, Milsons Point, NSW.

WHAT IS CLEVER ABOUT COMPETENCY-BASED TRAINING?

BRIEF PRESENTER: Roger Thompson
Director
Thompson Consulting Pty Ltd

With considerable interest being generated nationally in the acquisition of job skills or competencies for a more clever workforce, many new training and vocational education programs are appearing which purport to be competency-based. These programs are characterised by reference to modules, to objectives and assessment. Are these programs very different from the old? Will they provide the quantum leap in effective learning that is necessary for improved productivity and job satisfaction in the Australian workforce?

Traditionally, industry training and vocational education are instructor-centred. Programs emphasise content to be covered and knowledge to be acquired, often not in direct application to the specific requirements of people's jobs. Traditional on-the-job training, although applied in the actual job situation, is invariably incomplete, inaccurate and inconsistent. These traditional types of training programs or situations are unlikely to contribute to the development of a clever country.

Under the conditions of award restructuring and the structural efficiency principle, each individual member of the workforce is supposed to be developed as a better functioning human being. The job emphasis is upon multi-skilling, redesign and enrichment. Hence the training focus is upon greater skills acquisition, flexibility, versatility and responsibility for performance. Individual members of the workforce are expected to be more self-directing; to be able to think for themselves and make correct and reliable decisions. In short they are meant to become more clever, so that they can contribute to a clever country. Cleverness is not a natural phenomenon. It is an attribute that is more likely to be acquired in a special type of program.

Many, perhaps most of these programs which are now said to be competency-based, represent little more than a new cover on an old, outmoded and ineffective model. They are unlikely to enable people to attain the skills and work attributes essential for restructuring. These programs have the trappings of competency-based training (CBT) but they invariably have major deficiencies: they have objectives which are often incomplete or unachievable. They consist of modules, but these usually read like chapters in a book, rather than being flexible packages. The programs include assessments, many of which do not relate closely to actual job needs, do not correlate accurately with the objectives, and do not provide objective criteria for measurement. Perhaps the most inadequate feature of these programs is that the training-learning process remains instructor-centred. The instructor issues trainees with modules and proceeds to lecture from the module. Initiative and responsibility are not transferred to the learner. Programs that continue to be instructor-dominated are not providing the type of learning process which will enable people to acquire those competencies necessary to restructure the Australian workforce. Those much needed, high order, personal behaviour skills which are essential for workers in a clever country, are simply not going to be attained through a training process that is unable to transfer power to the learner.

To enable individuals to acquire skills of cleverness, CBT programs must demonstrate these skills through the training-learning process. Programs must be learner-driven because it is by this approach that individuals will practise being responsible, accepting that the problem is their problem, being resourceful; in effect, being a smarter worker. If the nation genuinely desires a smarter workforce, then CBT is essential, through programs that function via a smarter learning process. We will not have a clever country while we continue to tell people how they should perform their jobs. They must be encouraged to think and work on their own initiative.

A genuine CBT program epitomises flexibility and individuality. Learners choose the modules which most suit their needs and which are based on their prior learning and job requirements. They learn at their own pace although they must expect to meet time-based targets because that is a reality in the job world. They choose a range of learning activities which most suit their learning style. For example they will work independently on some activities, as a member of a group for other activities, and in some situations it will be appropriate for them to attend specialist presentations. They will have significant influence as to the time and place for their learning. They will choose resources which they think will most assist their learning. They will learn to access their own resources.

A major component of the CBT process is the relationship between learners and resource persons. A resource person in a CBT program is not an instructor but is genuinely a facilitator of learning. A quality program is characterised by a strong, positive, interactive relationship between the learner and resource person. A good effective relationship greatly assists the assessment process, for in a CBT program, assessment of the learner's performance must be criterion-referenced and conducted in the actual job situation. The learner and resource person prepare for this together. They jointly decide when the assessment should be conducted and the degree of preparation which should be made. They also jointly decide what remedial action is needed if any deficiencies appear in the learners' performance. Thus genuine CBT programs are positive learning experiences undertaken by learners in consultation with their resource persons. Throughout this process the onus of responsibility is upon the learner.

For Australian workers to be more skilful at their work, they must learn to be clever. Cleverness is not a substance which can be simply injected into an individual. It must be acquired through a learner-driven learning process. Developers of many supposed CBT programs have failed to recognise the need for a radical change in the way training-learning is delivered. Unless this radical change is forthcoming, no one should be surprised that, despite the restructuring process little seems to be happening in terms of improved worker performance. If workers are not learning to be more clever, it will not be their fault.

STAFF DEVELOPMENT IN COMPETENCY-BASED ASSESSMENT

BRIEF PRESENTER: Russell Docking
WA Department of Productivity and Labour Relations

Objectives

To describe in outline an in-service course designed and used in Western Australia to assist TAFE staff to develop an understanding of competency-based assessment and to acquire skills and strategies to implement competency-based assessment in their courses.

To discuss a number of problems experienced by TAFE staff in understanding, accepting and implementing competency-based assessment approaches.

Background

Since 1974, WA TAFE has sponsored two-day staff development courses in competency-based training for staff from almost all subject areas and from all parts of the State. The course has evolved over time, reflecting changes in TAFE policy, assessment techniques and the industrial environment. In particular the course has been influenced by the development of the New Apprentice Training and Assessment Scheme in WA, national developments in industrial training, developments in accreditation and skills recognition, and award restructuring and the need for structural efficiency.

Main Themes of the In-Service Course:

- Problems with traditional forms of assessment and the need for competency-based assessment;
- The critical components of competency-based assessment;
- Establishing working systems for competency-based assessment;
- Interfacing with traditional assessment systems;
- The application of competency-based approaches in other areas of training.

The In-Service Course Format

- Setting the course in the subject area of the participants;
- The use of workshops;
- The use of media/handouts;
- The use of follow-up printed materials;

- The provision of follow-up consultancy services.

Evaluation of the In-Service Course

- Impact on participants;
- Impact on study areas;
- Impact on TAFE policy;
- Impact on developments in competency-based assessment.

Problems Experienced by TAFE Staff with Competency-Based Assessment

- The fundamental differences between competency-based and traditional approaches.
- Breaking away from long established mind sets.
- How to define and identify competencies?
- How much paperwork and assessment time will it involve? How can it be done?
- Interfacing with a traditional assessment system.
- Applicability of traditional measurement and test analysis techniques.
- The perceived prescription of specific training techniques (such as mastery learning, self-pacing and modular instruction) to accompany competency-based assessment.
- Problems associated with remediation.
- Coping with varying entry and exit points.
- Some hidden fears: accountability and student empowerment.

The In-Service Course Outline

In the following course outline, the uppercase letter at the end of each heading (A, B, C,...) refers to a collection of background resource materials, and the items in square brackets[] to teaching resources used in the course.

ASSESSMENT SEMINAR

Dr Russell A. Docking

DAY 1

9.45 **Morning tea**

1. Introduction

Assessment can harm as well as help [Cartoon]

10.00 **Principles of assessment** **A**

- functions of assessment [List]
- as part of the learning process [Models]
- problems in assessment
  . destructive vs constructive [see paper]
- developments in assessment approaches [Lists]
- continuous vs final assessment
  .+ feedback/content sampling/relevance/context/workplace
  .- time used/teacher bias/pressure/honesty/addition of marks/forgetting/paperwork
- alternative assessment systems
  . NRM - assumptions/characteristics/outcomes
- desired outcomes-characteristics-CRM [Table]
- summary: CRM not NRM [see list]

11.30 **2. Competency-based training and assessment** **B**

- basic requirements and benefits [Figure]
- operational requirements [List]
- *brief* outline of gathering evidence, recording, interpretation
- NATAS and the DOLAC report as examples - local, national and international responses
- problems: real and imaginary
- *discussion: The relevance of CRM.*

12.30 **Lunch**

1.30 **3. Skills measurement as gathering evidence** **C**

- skills definition
  . derivation (clients/providers/students) [p5]
  . from assessment devices [problems p4]
  . integration - fragmentation of processes
  . clarification (ambiguity/standards) behavioural objectives [Cartoon]
  . classification (taxonomies?)

  . setting performance standards [Glass]
  . defining further criteria (e.g. fingerwave)
  . test validity [Automotive Mechanics sample]
- principles of good measurement of skills
  . validity, reliability, efficiency
  . normative aspects
- developing testing procedures
  . testing options: essay, m/c, observation, practical etc. [Cartoons]
  . testing myths ('objective' vs 'subjective')
  . skill-test relationship [Office Skills example] [Table]
  . coversheets [Coversheet]

3.00 **Afternoon tea**

3.30 **4. Record-keeping** **D**

- marking? traditional approaches
  . assumptions/problems/'solutions' (Imrie)
- wholistic [C Cartoon]
- competencies: coversheets [Coversheet]
- integrating assessment sources
- rocord-keeping strategies [Table]
- record codes [OPH]

4.00 **5. Interpretation of records for grading** **E**

- grading to a 'norm' [Cartoon]
- decision-making strategies: not just weight, but balance [Meal]
- EBP [EBP] [Table]
  . normative aspects
  . multigrading [Ladies and Gents OHPs]
  . grade/marklevels [OHP]
- advising colleagues & students of EBP: make the rules they have to play [Cartoon]
- reporting results (The 'perfect' scale?) [OHP]
- *workshop: EBP decision-making rules*

5.00 **Close**

DAY 2

8.00 **Review of first day**

8.30 **6. Maintaining comparable process and product standards** **F**

- of teaching (criteria, content & methods)
- of testing (data collection)

- of grading (decision making)
  - . statistical moderation (soft): external final exams
  - . consensus moderation (plastic): regional meetings
  - . perspective moderation (hard): criteria & EBP rules
- constraints and freedoms:
  - . allowing for teacher and resource variation
  - . allowing for regional variation
  - . allowing for student variation

9.30 7. **Developing assessment systems as part of the curriculum design process** G

- improving efficiency - of teaching/learning
                       - of testing
- setting guidelines for the assessment process
  - . traditional 'marks-based' models
  - . traditional 'test-based' models
  - . grade related criteria
  - . the EBP model revisited
- combining assessment resources

10.30 **Morning tea**

11.00 8. **Evaluation and refinement of assessment systems** H

- test analysis and review
  - . traditional approaches: coping with marks
    - . sampling validity
    - . internal consistency
    - . difficulty
  - . CRM
    - . onjective/measures matching
    - . error analysis
    - . thought processes
    - . item content review
    - . grade to competency inferences
- system evaluation strategies
  - . objectivity
  - . flexibility
  - . informativeness
  - . meaningfulness
  - . sharpness
  - . side effects
  - . simplicity
  - . reducability
  - . self-consistency
  - . maleability
- *workshop: Test analysis methods*

12.00 **Lunch**

1.00 **9. Interfacing with other systems** **LJ**

- College
- TAFE -TE78/syllabus, own examinations
- WACTA requirements
- DET/NATAS
  . input for DET [Flowchart]
  . study area leaders [Handout]
  . lecturers
  . input to DET [Flowchart]
- *workshop: Matching assessments to NATAS*

2.30 **10. Catering for the disadvantages** **K**

- bias
  . sex (examiner and student) (e.g. Sweet test)
  . race
  . SES (including work ethic)
  . literacy level
  . test wiseness
  . anxiety [Cartoon]
  . personality (risk, creative, response bias)
  . learning style (meaningful, perception)
  . motivation (intrinsic)
- classification and self-fulfilling prophecy
- prevention:
  . public objectives
  . public standards
  . skill linked assessment
  . alternative assessment methods
  . open records
  . remediation
  . re-assessment

3.00 **11. Conclusions** **L**

- assumptions underlying tertiary assessment
  . undefinable
  . single dimension
  . academic not practical
  . predicts future
  . collaboration = changing
  . failure is student's fault
  . one-shot final examinations
  . stress is necessary
  . uniformity is required
- what do we want our students to learn from assessment? (List)
- benefits of EBP

  - . for students
  - . for lecturers
  - . for college
  - . for industry
- turning thoughts into action
  - . analysing existing units
  - . making changes slowly
  - . preparing students for change
- implications for lecturers

4.00 **Close**

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NATIONAL RECOGNITION OF EXPERIENTIAL LEARNING FOR THE HOSPITALITY INDUSTRY

Derrick Casey
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Background

The National Tourism Industry Training Committee (trading as Tourism Training Australia TTA) completed a series of seven national skill audits between 1987 and 1989, covering all major occupational fields in hospitality.

The resultant reports contained recommendations for new career path structures in each occupation, together with comprehensive skills/task listings for each classification, a person profile, job statement and several recommendations for action to enable the necessary changes to take place.

Although most of this work was actually completed prior to the award restructuring process becoming a part of the national agenda, it nevertheless conveniently formed the basis for discussions regarding award restructuring in the hospitality industry.

Cooking was the subject of the first report from which three major recommendations were immediately acted upon, they were:

- To develop formal processes for recognition as a tradesperson of experienced but non-formally qualified cooks (around 60% of all practising cooks at the time);
- To develop common core curriculum for apprentice or basic trade cookery courses;
- To develop a national post-trade award (advanced certificate) in cookery.

This paper reports on the progress of the recognition processes in cookery; the development of recognition processes in other (largely non-trade) areas, that is, waiting, accommodation, guest services. In addition the consequent directions for the TAFE hospitality curriculum in terms of status for prior experience, in-house co-operative training and new TAFE workplace agreements are discussed.

Trade Recognition for Experienced but Non-Formally Qualified Cooks

At the time of the research three States (Qld, NSW, Vic) were involved in recognition processes for cooks, each had different criteria and each had a failure rate via the 'trade test' of above 85%.

The processes were expensive as they were conducted on demand, at little or no cost to the client and were demoralising due to the high failure rate, lack of feedback or viability of the candidates to linking into further training.

The fundamental issues considered to bring about change and improve this process were to:

- change the test from the third year apprentice test to a competency-based industry standards test;
- produce a self-evaluation and information handbook on a national basis, to set the standards and processes for recognition clearly;
- produce self-study modules in each major topic area to enable candidates to brush up on perceived areas of weakness (as identified in the handbook);
- provide a flexible modular based cookery program which allowed entry and exit at any time during the program, in short, stand alone modules;
- establish national standards of operation by the State Training Authorities, TAFE, ITCs and industry in the conduct of these processes.

The processes were completed through extensive national consultation with all bodies concerned and are now well documented, including:

- **National Standards**

  A comprehensive folder containing details of the processes for recognition, the handbook, the trade test, a sample application form and sample letters were produced. The folder is now held by all State Training Authorities, ITCs and major TAFE hospitality colleges.

- **Self-Evaluation Handbook**

  The Qualified Professional Cook is now published nationally and is sent as basic information to any candidate applying for recognition as a tradesperson cook.

- **Self-Study Modules**

  These modules are in the process of being developed. To date one has been completed with five more scheduled by the end of 1990. The practical subjects usually comprise a self-study handbook, demonstration video and recommended test (if applicable). They are designed as a confirmation of standards rather than a formal course of study.

- **Flexible Modular Based Program**

  A new modular based program in cookery will be trialled in SA in 1991. The major features of this program include:

- flexibility of entry and exit throughout the program;
- progression rate through the modules may largely be determined by the employer and employee;
- availability of learning materials for on-job study;
- test out facility in each module if skills and knowledge are gained on the job;
- access into discreet modules or the full program, available to all industry personnel and to adult (over 21) students;
- selection in the order of progress through modules forming the program;
- ability to progress directly into advanced certificate modules, during the basic program, once the pre-requisite basic module is complete, rather than waiting for full completion of the course.

A comprehensive paper is available for this program from Regency College.

Current Progress

The recognition processes have been piloted in SA, WA, NT, ACT and are in the process of being piloted in all other States.

Feedback from candidates, ITCs, State Training Authorities, unions, TAFE and industry personnel have been very positive to the processes and support mechanisms produced.

The following information is taken from the SELF-EVALUATION HANDBOOK and outlines how the recognition process is conducted.

The Process for Recognition

If you have not had the opportunity of formal 'off-the-job' training via an apprenticeship or recognised certificate course, but have completed at least six years full-time as a practising cook, you may be eligible to apply for formal recognition through the State Training Authority (STA).

The period of six years may be reduced if you have completed some form of 'off job' training, such as a 'Commercial Cookery Certificate' or have qualifications in cooking from overseas or the armed services.

The level of skills and knowledge required for recognition as a qualified cook are clearly set out in the information provided in this section.

The skills and knowledge requirements for recognition as a qualified cook are clearly established in Australia and are applied nationally throughout all recognised training processes.

This is achieved through a clear statement of the 'competency' required for a cook to complete a defined task at an acceptable commercial level, upon which all courses and on-the-job training processes are established.

To achieve national consistency a list of 17 major topic areas are used to define the essential skills and knowledge required by a qualified cook.

Module Areas

The module areas include:

1. Mise en Place and Basic Preparation
2. Principles and Methods of Cookery
3. Stocks, Sauces and Soups
4. Vegetables, Potatoes, Rice, Eggs and Farinaceous
5. Salads, Hors d'Oeuvres and Canapes
6. Pork, Lamb, Beef and Veal Butchery and Cookery
7. Poultry and Game Preparation and Cookery
8. Fish and Shellfish Preparation and Cookery
9. Hot and Cold Desserts
10. Kitchen Equipment
11. Food Hygiene
12. Catering Control and Menu Planning

* 13. Buffet Techniques

* 14. a la Carte and Table d'Hote Restaurant Operations or Industrial Catering

** 15. Pastry, Cakes and Yeast Goods

** 16. Food Science (Chemistry, Preservation, Nutrition)

17. Occupational Health and Safety

* Dependent upon the workplaces you have been and are currently involved in, you would be expected to have a sound working knowledge of either a la carte, larger production cookery and/or functions and banquets.

** You would be expected to have a good level of understanding with a basic working knowledge.

In reference to these topic areas it is recognised that at least two basic categories of cook exist in the industry at large, that is:

(1) A la carte - employed in restaurants, hotels, motels, clubs, etc.

(2) Industrial - employed in institutions, large cafeterias, hospitals, etc.

Although the fundamental principles involved in the various jobs are the same (or at least very similar), it is recognised that the specific skill and knowledge areas listed above are not necessarily relevant to all cooks.

For example, it would not be expected that a cook working in an industrial cafeteria would require a high degree of knowledge or competence in a la carte food service, not would this be necessary for recognition as a tradesperson.

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Each module is listed with a brief explanation and a bold outlined statement of competency, in this format, which specifies the level of skills and knowledge required by a qualified cook.

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A short list of sample questions is also provided for each module area to enable candidates to test their basic understanding of the topics.

If you meet the requirements explained previously regarding experience, meet the criteria set out in the following statements and are able to answer the majority of sample questions, it is likely that you will be eligible to gain formal recognition and should therefore apply to the State Training Authority.

There are several options available if you feel there is an area with which you are unfamiliar:

(1) Contact your local TAFE hospitality college regarding short courses or bridging programs which may be available in the area you require;

(2) Short self-study modules are available for some of the subject areas. These will assist in the development of the skills and knowledge required. Contact the State Training Authority, TAFE hospitality college or Industry Training Council for information and availability regarding these modules;

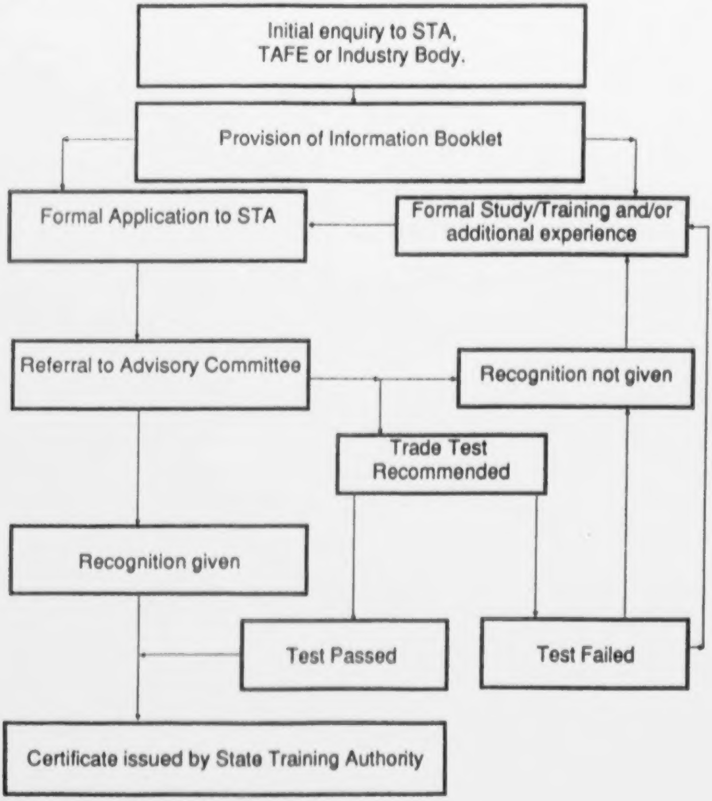
(3) Further industry experience may be required to develop the skills necessary. You may need to consult with your employer to arrange relevant work in these areas if it is available.

If you need further information regarding requirements for recognition please contact the training officer from the State Training Authority.

The Process for Application

The State Training Authority is the body responsible for the awarding of a formal certificate of recognition. If you are confident that you possess the necessary skills, knowledge and experience required for recognition as described in the previous section, complete the application and forward it to the address on the form with the relevant references and/or certification to support your application.

The following diagram provides a schematic view of the full process; each step is then described.


Initial enquiry to STA, TAFE or Industry Body.
Provision of Information Booklet
Formal Application to STA
Formal Study/Training and/or additional experience
Referral to Advisory Committee
Recognition not given
Trade Test Recommended
Recognition given
Test Passed
Test Failed
Certificate issued by State Training Authority

Provision of Information Booklet

This information booklet is designed to enable the self-evaluation of your potential status regarding formal recognition as a qualified cook, and outlines the processes for this recognition.

Formal Application

If you determine that you have fulfilled the requirements for recognition as a qualified cook, complete the application form and return with the information required (references, curriculum vitae, etc.)

This initial application is evaluated by the relevant training officer of the State Training Authority at which time the applicant and employer may be interviewed to establish a prima facie case for recognition. Where a prima facie case is established the application would be referred to the appropriate advisory committee with a report from the supervisor.

This committee may approve formal recognition, order a trade test if required, approve recognition on the basis of evidence submitted to it.

This advisory committee would normally contain members representing industry, union, TAFE and the STA.

If recognition is given, a certificate will be issued. This certificate has national recognition.

Recognition Not Given

If your experience is considered to be insufficient for formal recognition, make an appointment with the training officer of the State Training Authority or Industry Training Committee to determine what is required by you to gain recognition. There is usually a minimum six month period before a second application may be lodged.

Trade Test Recommended

The advisory committee may recommend a trade test in order to verify your skills and knowledge. This test will comprise a practical and theory component and will be conducted by an appropriate TAFE college.

The tests are compiled from a national data base of questions and tasks which are designed to ascertain the level of competency of the candidate in the essential areas listed in the previous section.

An example study guide is given in the section on trade tests. External study modules are available from your TAFE college in each of the major topic areas to assist candidates to study appropriate material for the test, or to update industry knowledge.

Trade tests will be conducted once or twice each year at the appropriate TAFE college, dependent upon demand in each State or Territory.

If the trade test is passed, recognition will be given and a certificate issued.

If the trade test is failed, a report will be provided to establish the area/s in which you were unsuccessful, with recommendations for future study and experience.

Trade tests are assessed by a certified industry chef and a senior TAFE cookery lecturer.

Formal Study/Training

If after reading this booklet you believe further experience or additional skills and knowledge is required to enable formal recognition, seek advice from your local STA training officer, TAFE college or professional industry body.

External study modules in each of the major topic areas are available from a TAFE hospitality college in your area. These cover the basic information in each area, with practical study lessons which may be completed independently in your place of work, and suggestions on how to gain necessary additional experience.

Several TAFE colleges conduct courses which will assist you in gaining formal recognition. They range from bridging courses to a full Certificate in Commercial Cookery. Consult your local TAFE hospitality college for further information.

Final Recognition

When recognition is given, you will be issued with a certificate, an example of which is contained in the appendices of this booklet. This certificate has national recognition in Australia by government, industry and unions and will afford you the benefits of a qualified tradesperson.

A detailed account of the processes are available in the handbook and folder outlined in Attachment 1.

Recognition of Skills for Other Hospitality Industry Personnel

The recognition processes for cooks focused on 'trades recognition' as it is a declared vocation. This was relatively simple in terms of a single focal point and a reasonably well established industry standard.

However, in the other areas which include waiters, housekeepers, guest services and bar persons, the careers were ill-defined, are largely occupied by unqualified personnel (over 85%), rely heavily on casual staff and are held by people with relatively little formal training.

In the new award structures, each of these classifications now have from 4-6 grades, each grade having either a recommended (1 and 2) or required (3-6) training program.

A major problem faced in this area was the development of a recognition system which recognised groups of skills required for progression from one level to the next in the industrial award, and which may then link into formal educational qualifications via status if sought by the candidate, (particularly when seeking status for base certificate award for access into higher, advanced certificate or diploma awards).

While the recognition for cooks was monitored by a tripartite committee, and trade testing (if required) conducted by an industry and TAFE expert for a group of candidates, this was not possible for these vocations as it would be very difficult to set up relevant simulation programs for many of the skills which would require testing.

To overcome these problems the processes currently under development include:

- identification of the specific skill requirements at each grade for each occupation;
- production of training materials for each 'module' which are mainly designed for on-the-job training;
- mainly using workplace assessment to verify the skills learned. This will be accomplished by training appropriately qualified/experienced supervisors, expert workers, managers, etc. as 'Workplace Assessors';
- establishment of Industry Assessors to act as moderators for an industry group or region, also to provide workplace assessment where Workplace Assessors are not available.

Integration of Work and Learning Processes

The original intent of providing recognition to well experienced but non-formally qualified workers, was to enable appropriate status (industrially and personally) for competent tradespeople who had not had the opportunity of formal training.

While these people do not receive an educational qualification in competency terms, they are seen as equal to those who do, thus receive the same pay rights, the ability to train apprentices or trainees, and ability the to enter into post-trade studies.

This of course raises the question in terms of the educational value of industry-based or experiential learning compared to traditional off-job classroom learning and brings us to the point which we are currently at, that is, recognition both for industrial award conditions and for status in formal education awards for independent modules of study.

Training in Australia has largely been 'someone else's' responsibility with few employers providing any form of training and any on-job training which did occur was rarely publicly recognised anyway, in terms of academic accreditation.

With the advent of award restructuring, training is now a normal part of the new career structures, which in many cases means completion of a training program and/or proven competency in specific skill and knowledge areas.

We are thus facing an era of addressing training provision for a large proportion of the Australian workforce who, by and large, are currently doing the job and may be restricted from further progression until they are able to gain recognition for their current skills and/or complete further training.

In this context it will not be possible to address these people via the traditional training systems which we have largely used for pre-entry or basic trade (apprentice) training. Thus new forms of educational delivery and recognition of on-job learning need to be developed.

The following paper outlines a current project between Regency College and QANTAS Airways to develop and implement the materials and processes which focus and recognise learning in the workplace.

'The Workplace Classroom'

A new era of education is now starting to emerge which aims to address the major effects of award restructuring with partnerships forming between enterprises and educational providers, thereby enabling a closer articulation of workplace learning, in-house training and formal education.

One such partnership is that established between QANTAS and Regency College Hotel School (TAFE). The objectives of this partnership are not only to assist in the development of off-job training programs but to assist in the creation of a 'Workplace Classroom' environment, whereby skills and knowledge acquired on-the-job are formally recognised and in fact become an integral part of the course structure leading to a formal educational qualification.

If we consider briefly that TAFE colleges have been built not only to complement workplace learning but often to simulate it, we must ask why is only the simulated learning measured and rewarded by a qualification, with little or no public account for the workplace learning.

One answer to this is simply that it has been too hard. How, for example, do we maintain the integrity and quality of a qualification if every Tom, Dick and Harry has their hand in teaching or in fact measuring it?

However difficult this problem is, it is essential that we develop mechanisms for the measurement of workplace learning as an important and essential component of developing the building blocks for future relevant levels of qualification. Thus the 'educational qualification' will become an 'occupational qualification' containing the necessary focus inherent in educational or academic studies.

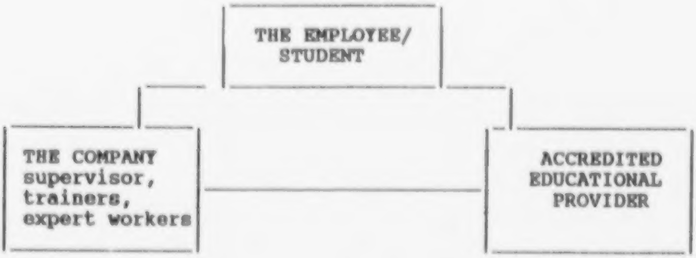
This concept is not new, neither is it untried; the current traineeship is a partial example where the curriculum is written in context of the requirements for both on- and off-job learning and skills development.

There are also many examples of higher level degrees including MBAs which are focused on workplace learning, which incorporate mutually agreed work projects as a major part of the qualification, thus requiring far less off-job attendance at a university than the traditional model.

And indeed this model makes a lot of sense when we consider that a great deal of subject content is built around 'case studies' which enable the student to relate the learning to their job, so why not put it in the workplace and let the student create and experience their own case study?

Processes for Development and Implementation

The workplace classroom may best be described as a tripartite relationship between:


THE EMPLOYEE/ STUDENT
THE COMPANY supervisor, trainers, expert workers
ACCREDITED EDUCATIONAL PROVIDER

The company currently employs 'expert workers,' 'supervisors,' 'managers,' 'trainers' - all of these or a combination of, dependent upon the size and structure.

All of the above people have a responsibility for training either formally or informally and in a restructured industry where we are focusing attention on the development of our people, there is no doubt that all of the above should have a formal role in training and development of some nature.

The application of a workplace classroom would require that supervisors and managers (and in some cases expert workers or team leaders) require a degree of training as trainers and assessors.

The training role in this instance is not necessarily seen as formal group off-job instruction, rather as a monitoring, and often one-to-one training role on-the-job.

The assessment role would be well defined with prepared competency assessment in specific skill areas. Assesment would often be instigated by the worker when they felt prepared, either at a given time (e.g. for the operation of an information terminal) or over a period of time (e.g. providing satisfactory customer service).

The accredited educational provider would have the role of developing learning materials (handbooks, audio tapes, video tapes, CBI, etc.) in co-operation with the company, which addressed both the company and the educational needs and could be delivered efficiently in the workplace.

The delivery methodology is the key component of the 'workplace classroom' as it would strive to maximise the learning on-the-job rather than off-the-job through the traditional processes currently employed.

An example would be in the teaching of a customer service program.

Currently an employer most commonly uses the approach of providing a short intensive workshop through either their training department or an outside provider. While the materials and techniques used in this approach are often very good, the process nearly always falls short in terms of on-going on-job support and evaluation of the skills supposedly learned.

In fact, in many examples I have observed, this training approach results in no long-term change at all and may prove detrimental rather than beneficial, due to the cynicism created when staff return to an environment that has not changed to support the new ideals.

The fundamental reason for this of course, is that training is not 'owned' or not seen as a normal process of daily operation, rather that it is somebody else's solution to a problem and by some magical formula, after two days of input the participants will arrive back with the new skills and put them into action. (I suppose if we had a 3½" floppy in our head this may be the case!)

Thus the intent of the workplace classroom concept is not only to provide integration and recognition of work and learning, but more importantly, ownership and after sales service.

In terms of the customer service program, not only does the current workshop delivery method often prove ineffective, it also attracts no potential credit towards an educational qualification.

The method of developing skills in customer service by the workplace classroom method would generally involve a series of short (30 mins - 1 hour) tutorial sessions delivered each week or fortnight over a period of, for example, three months.

These short sessions would be designed to discuss key points relating to customer service and to reflect experiences which the employees were having on the job in relation to customer service. The delivery would be by either a lecturer from the educational provider, a company trainer, a supervisor, or most likely a combination of these people.

The learning materials would include a student handbook which contains the objectives, expected competency level to be reached, method of measuring (assessing) this, background reading, reference to other learning materials available and directed exercises.

The success of the workplace classroom relies upon having managers, supervisors and/or expert workers involved (and trained) in the course development, on-job-training and evaluation.

The assessment may be a combination of:

- self-assessment;
- knowledge testing (written and/or oral);
- supervisor job observation;
- project work related to the job (e.g. identify three major areas of concern in terms of customer service and suggest how they may be rectified);

but would largely relate to demonstrated competency on the job.

The practical development of the skills would rely on the employee being able to use the knowledge gained in appropriate job related experiences under the mentorship of their supervisor.

The assessment instruments would of course be developed as part of the package, and for on-job observation would most likely be in a checklist format for observable competencies.

Once the assessment was satisfactorily completed. (The time would depend upon the employee and mentor agreeing on a suitable time.), the result (which if satisfactorily achieved would simply be 'competent' or 'pass') would be recorded as if the employee had completed a TAFE subject in customer service and may consequently be used for status in an appropriate educational qualification with the educational partner.

The educational partner maybe a single institution or a complete public system either State wide or national.

The advantages become fairly obvious, and are:

- current employees are able to gain appropriate credit for public educational qualifications for measured skills and knowledge gained largely on-the-job;

- a far greater degree of co-operative and relevant course development is promoted in such an educational partnership, with obvious benefits to both;

- adults are not made to relearn skills for the sake of a rigid system;

- training eventually becomes an integral part of a company's work life at all levels;

- training is owned, delivered and updated by the people actually creating and directing the daily work environment;
- learning is not wasted simply because it was not delivered in a college or directly by an educational agent;
- people are given more responsibility for their learning rather than being 'spoon fed' through lengthy lecturer face-to-face programs;
- the learning is more relevant, as in many cases it will be directly concerned with what the person is doing or striving to do;
- it is more accessible and cost-effective as it does not require long off-job periods or face-to-face delivery;
- it fully integrates on-and off-job activities in the process of the learning.

Some difficulties may be encountered in:

- assuring the quality of on-job mentorship or opportunities to practise/develop the skills learned;
- maintaining discretion and confidentiality by the educational provider in terms of possible dealings with other companies;
- not all supervisors, managers or expert workers will be able to cope with the mentorship and evaluation role;
- initial resistance may be expected from these people in regard to the perceived added workload to their already busy schedule.

However, there is no doubt that our current educational system, which is largely developed for the provision of major industry entry courses and assumes no knowledge or skills as a starting point, is not suitable for dealing with the training requirements of award restructuring.

To become more efficient and deliver better and more accessible programs we must take better account of skills already learned and create opportunities for current industry employees to learn new skills or develop current skills as part of their normal daily work.

While I am not suggesting that current workers should not expect to study beyond their normal work hours, either at home or a college, this should not be to repeat processes they can best learn on the job or large chunks of skills/knowledge they already have.

In a period where the demands on education providers in Australia will continue to grow rapidly, it is important to maximise the use of our lecturing staff skills, and in many cases this will not take place by simulating practices which occur in industry everyday, but rather by developing more effective learning programs and materials which may be co-operatively used by all players concerned.

SUMMARY OF WORKSHOP DISCUSSIONS FOLLOWING DERRICK CASEY'S PAPER: NATIONAL RECOGNITION OF EXPERIENTIAL LEARNING FOR THE HOSPITALITY INDUSTRY

This workshop group determined that their discussion would be in the form of questions to be delivered to the presenter of the paper. The following are the issues raised to Derrick Casey and the subsequent answers/discussion:

Why do people seek recognition?

- they feel pressure from younger people who possess the appropriate qualifications;
- they may wish to update skills or address any areas where their skills are inadequate;
- they wish to improve their mobility.

How (in the Regency College experience) is credit applied for?

- it may be given on individual subjects;
- it may be given in an area of study;
- it can be given in terms of credit points rather than for specific subjects.

How much credit is given?

- if the institution awards the certificate, their students must undertake between 1/4 to 1/3 of the course;
- if it is an industry award then perhaps the award could be gained entirely through credit arrangements;
- the current trend is towards more credit being available and recognised.

What is involved in industry recognition?

- this can be a very difficult area because of the diversity of enterprises within a particular industry.

Is there a risk that standards may be lowered by the introduction of recognition of experiential learning?

- the processes involved in the assessment procedures should be sufficiently defined to ensure that standards are maintained.

NATIONAL SCHEME FOR ACCREDITATION OF INDEPENDENT BUSINESS COLLEGES

Pamela Walsh
Past Chairperson
Australian Council of Independent Business Colleges

Founded in 1976, the Australian Council of Independent Business Colleges is the representative body of non-government business colleges in Australia. Its role is to promote professionalism amongst its members, to assist them by disseminating information about new developments in business training and to represent them in negotiations with other organisations, government departments and the industry at large. The member colleges, some over ten decades old, represent over 6600 full-time and 12000 part-time Australian and overseas students.

The Council is affiliated with the United States based Association of Independent Colleges and Schools and is a founding member of the International Council of Associations of Private Career Schools and Colleges.

The Council is committed to providing its members with a wide range of services.

Government Relations

The Council is respected by government representatives. This relationship allows it to respond to questions regarding legislation and regulations that could affect Members' students and schools; its submissions to the government improve understanding of the role of private business colleges and schools, at all government levels - regional, State and Federal.

Marketing

The Council is committed to a greater role in the marketing of business colleges both in Australia and overseas. It strengthens State marketing programs by providing counsel and advice and seeking to disseminate information about new government and overseas programs.

Committees

State and Territory committees provide the board of directors with immediate response to a host of questions on such matters as accreditation, labour relations, government subsidies and funding, curriculum development and marketing. Working parties have been established and their reports are circulated to members.

ACIBC Accreditation

Some years ago, during my term of office as Chairman of the ACIBC, I recognised a need for a mechanism to maintain the professional standards and quality of business education delivered by our members.

To achieve this end we set about to devise a system of self-regulation of the quality of training and facilities provided by our member institutions which would be known by the ACIBC as accreditation.

Implementation of accreditation can only enhance the standing and reputation of member colleges.

A proposal for self-regulation of our industry was advanced by a member of the ACIBC Committee to the then Commonwealth Department of Education some ten years ago. At the time the bureaucracy was horrified at the idea, but the wheel has since done a complete revolution and over recent years the Commonwealth Government has been a strong supporter of the concept.

Quite apart from government support, the ACIBC decided to proceed with the setting-up of a system of accreditation, and engaged Tim Jones (the current accrediting commissioner) to draw up a set of procedures. This was done using the American system (The Association of Independent Colleges and Schools), and its documents as a basis, and adapting it to Australian conditions. We were fortunate in having the American documents as this has been an established accreditation system for many years.

The result, which has been progressively refined in the light of experience, is a set of published procedures which are easy to follow and which cover the entire range of operations of a business college.

Put briefly, a college seeking accreditation must prepare what is called a self-study document, which answers questions covering the whole of its operations. I should say that most colleges which have been through the process have found the exercise most useful - its proper completion requires a long hard look at all aspects of the college and identification of areas where perhaps things can be improved.

The accreditation process is actually in four main stages - application, self-study, visit and decision.

Application for accreditation is entirely voluntary and a college may withdraw from the process at any time prior to a final decision. The application is examined to ensure that minimum eligibility requirements have been met, the most important of these being:

- The college's principal purpose should be to offer to the majority of students educational programs which equip them with skills and competencies to enter business or business-related career fields - although with the request from some States for ACIBC accreditation to encompass a broader range of private educational providers, this requirement will be expanded.

- The college must provide post-secondary education.

- Its principal educational program shall be not less than six months full-time study.
- Its enrolment shall be sufficient to support regularly scheduled classes which together constitute a defined educational program.

The **Self-study** document gives the college an opportunity to make a thorough analysis of all aspects of its operations. In final form, it will give a detailed picture of the whole of the college's operations, including philosophy and objectives, control and management, administration, educational activities, relations with students, records, instructional staff and publications. In addition, a financial report for the most recent financial year is required. The Commission will ensure the confidentiality of information obtained during the accrediting process.

The Visit. After satisfactory completion of the Self-study, the college will be visited on a day when the college is operating normally. The purpose of the visit is to verify information in the Self-study and, supplemented by observation, to see how the college is meeting its stated objectives, and to see whether it complies with the evaluation standards. After the visit a report is prepared, a copy of which is sent to the college.

The Decision. After reviewing all available information, the Commission will grant full accreditation, provisional accreditation, or deny accreditation. Provisional accreditation will usually be granted where a college has been measured against the criteria and found to be in non-compliance with one or more standards but overall not so far short as to warrant denial of accreditation.

Full accreditation will be granted for terms varying from one to three years. Maintaining accreditation requires an annual report to the Commission and a repetition of self-examination and the visit towards the expiry date of the current accreditation.

Review Board. Provision is made for a college to appeal to a Review Board, under certain circumstances.

We do have another lower level of accreditation - Probationary Accreditation - intended for colleges which are about to or have only recently commenced operation. A visit of inspection is made, mainly to verify the bonafides of the applicant's intentions and to assess financial viability.

So much for the process. I might add that prior to the delegation by the Commonwealth of much of the work connected with registration of colleges for overseas students, DEET in Canberra accepted the ACIBC accreditation System completely as far as institutional accreditation was concerned. Since delegation it is not clear what all the States are doing. New South Wales has accepted ACIBC institutional accreditation completely and is anxious for us to extend this to all private providers of vocational education. They are also keen for us to undertake course accreditation and plans are well under way to do this.

Fees: Currently, $3500 for full accreditation, and $1500 for probationary.

Colleges are responsible for payment of the expenses of accreditation which are confined to necessary accommodation expenses, reasonable daily fees for the inspecting team, and economy class air travel. Every effort is made to schedule visits so that air travel expenses are minimised.

In the event of an appeal, the college concerned must bear the full costs of the Review Board's travel, accommodation and incidental costs such as hire of a hearing room.

Key Points for Colleges to Keep in Mind Include:

When a college substantially complies with the criteria, that college will be accredited.

When a college cannot meet the criteria, or fails to continue to meet the criteria, that college, ultimately, will lose its accreditation.

Denial of initial or renewed grant of accreditation can only be reversed by demonstration of corrective action. The Commission retains jurisdiction to make a final determination.

Suspension and possible revocation of accreditation is a significant judgement and should be taken seriously by colleges. Because of its seriousness, a college is accorded maximum due process to both challenge the Review Board, the Commission's application of its own procedures in arriving at such a judgement while, at the same time, attempting to remedy any cited deficiencies upon which the judgement was based.

The Commission is obliged to investigate all legitimate complaints against a college.

Current statistics as at 1st July, 1990:

43 Fully Accredited Colleges
6 Provisionally Accredited Colleges
11 Probationary Accredited Colleges.

SUMMARY OF DISCUSSIONS FOLLOWING PAMELA WALSH'S PAPER: NATIONAL SCHEME FOR ACCREDITATION OF INDEPENDENT BUSINESS COLLEGES

This workshop presentation provoked lively discussion on the always controversial topic of accreditation - in this instance made even more interesting because the focus of accreditation is on private trainers rather than TAFE colleges. The following issues were discussed under this topic:

- it was generally agreed that some form of national accreditation system was required but concern was expressed over the absence of skill standards.

- the issues of quality was also a concern. How can courses offered in several colleges assure quality and consistency. However, quality may be maintained because of the movement away from the assessment of educational parameters to assessing individual levels of competency.

- private providers are to some extent accredited by market forces.

- it was agreed that some supervision of award nomenclature was required. Examples of legislative requirements in Queensland were offered.

TRAC: A COMPETENCY-BASED LINK BETWEEN SCHOOL AND WORK

Richard Sweet
Dusseldorp Skills Forum

Introduction

Whatever the current award restructuring agenda might have to do with the needs of the existing work force and with the needs of industry, it makes little reference to developing productive skills in the majority of young people who constitute the workforce of the future. The creation of more adequate skill-based classifications in industrial awards and the linking of these to career paths will not in themselves address the central problems of our outdated system which deals with the initial vocational preparation of young people. This is not only because to date award restructuring and the implementation of the structural efficiency principle have largely focused on manufacturing industry, which accounts for only 13 per cent of all employment of 15-19 year olds compared to the two thirds that is to be found in the service sector. It is also because its principal concern is existing workers rather than future workers, and because it has made little reference to the role of schooling in work force preparation.

The paper that follows has two parts. The first takes a look at our national system for the initial vocational preparation of young people in the post-compulsory years. The second outlines a national pilot program designed to address the issues outlined in the first part.

Scale of Vocational Preparation Programs

Our national system of initial vocational preparation has two principal features: it is extraordinarily small; and it is based on a skill formation model that almost no other advanced economy adheres to.

There are several ways that the size of the system can be expressed. One measure is that only 20 per cent of all education and training places in the immediate post-compulsory years in Australia (roughly corresponding to ages 16-17) are represented by vocational preparation, compared to an OECD average of 49 per cent. The level for German-speaking countries is close to 80 per cent; while those for such countries as France, Sweden and Italy are 60 per cent or more (Figure 1).

Another measure is the fact that whilst in overall terms, enrolment rates among the 15-19 year old group fall below the average for OECD countries, our rates of participation in programs defined by national authorities as general education are above the OECD mean. The difference is accounted for by our very low rate of provision for the age group, compared to other countries, of forms of programs other than full-time general education. Almost without exception where a country's total participation rate for the age group exceeds Australia's, it is due to the wider availability of programs that are identified as vocational or technical by national authorities, and not to higher levels of participation in general education (Figure 2).

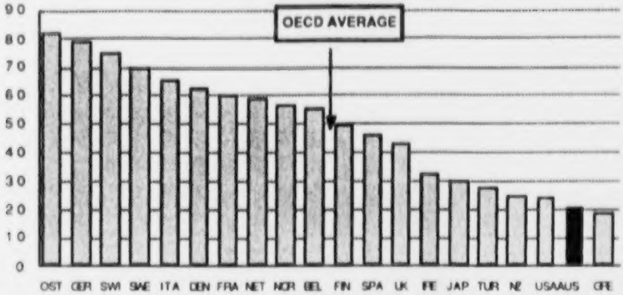


Figure 1: **Per cent of post-compulsory students in vocational programs**

Sources: For countries other than Australia, *OECD Observer*, No. 132, January 1985. Australian figures refer to 16-17 year olds and are calculated from ABS *National Schools Collection Australia* (Cat. No. 4221.0) and CTEC *Selected TAFE Statistics*, 1985.

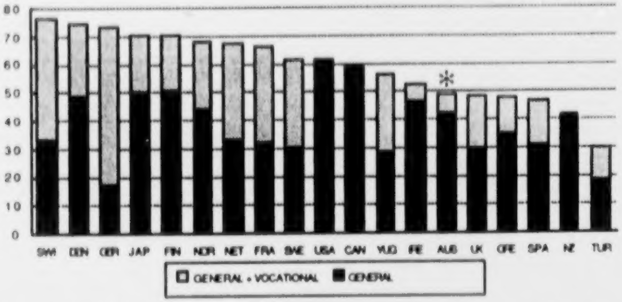


Figure 2: **Enrolment rates for 15-19 year olds, excluding higher education, OECD countries, 1986-87**

Source: *Education in OECD Countries, 1986-87*. Paris: OECD, 1989.

A third indicator of the size of the system is the low proportion of 15-19 year olds with a full-time job who are also involved in some form of part-time education, even with all apprentices and trainees taken into account. It can be estimated that in 1986 between 75 and 83 per cent of 16-19 year olds who held a full-time job were not at the same time involved in any form of part-time education and training[1] Growth in apprenticeship and ATS commencements since then has not greatly changed this picture. Unpublished data from the 1989 issue of the ABS **Transition from School to Work** survey suggests that at most, only around one in four of the full-time jobs held by 16-19 year olds is associated with some form of part-time education and training.[2]

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[1] Estimated from Table 1 in J.S. Dawkins & A.C. Holding. (1987). *Skills for Australia*. Canberra: Australian Government Publishing Service.

While most initial vocational preparation in other countries is undertaken in schools, in Australia TAFE is the largest single provider of the off-the-job component of entry level vocational preparation. Official TAFE enrolment figures for 1988 suggest that around 268 000 15-19 year olds, or 19 per cent of the age group, were participating in TAFE. However these figures greatly exaggerate the real level of participation, since they express the number enroling at any time during the year, and do not take account either of drop-outs or enrolments in very short programs that provide at best, partial skills. Alternative estimates derived from ABS sample surveys suggest that the real level of participation in TAFE by the age group is only around half the official figure, and hence the extent of structured and coherent preparation for the workforce provided for young people in Australia is even less than has been suggested so far.

The May 1988 **Transition from Education to Work** survey put the number of 15-19 year olds enroled in TAFE at 205 500. The September 1988 **Labour Force Status and Educational Attendance** survey showed enrolments dropping to 127 900 or slightly under half the official count. These figures are consistent with high drop-out rates and with a high proportion of enrolments in short courses. They help to explain the finding of a recent ACER study, using the Youth in Transition data base, that the labour market benefits, in the form of either income or employment prospects, gained by young people participating in forms of TAFE other than apprenticeship are not significantly different from those gained by young people who have undertaken no additional education or training since leaving school.[3] It appears that on balance TAFE, other than in its linkages to the apprenticeship system, does not provide young people with skills and qualifications that enhance their value in the labour market.

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[2] A recent draft DEET paper [A. Pawsey & B. Whittingham (1990). The teenage sector: trends to the year 2001. DEET Economic and Policy Analysis Division] suggests that the figure is higher than this. However its estimate of 31 per cent appears to be based upon official TAFE statistics, which show the number of 15-19 year olds in part-time TAFE courses to be over twice as great as the number given by the annual ABS Transition from Education to Work survey. The difference is likely to be due to the high drop-out rates among the age group from TAFE courses and to a high proportion of enrolments in courses of brief duration.

[3] A. Sturman & M. Long (1990). *Participation in TAFE*. Melbourne: Australian Council for Educational Research.

Table 1: Three measures of 1988 TAFE enrolments by 15-19 year olds

	DEET[1]	ABS (May)[2]	ABS (September)[3]
Full-time	49,922	48,800	34,400
Part-time	218,460	156,700	93,500
Total	268,382	205,500	127,900

[1] DEET *Selected TAFE Statistics*, 1988

[2] ABS *Transition from Education to Work, Australia, May 1989*, Cat. No. 6227.0.

[3] ABS *Labour Force Status and Educational Attendance (Persons Aged 15 to 24) Australia, September 1989*. Cat. No. 6272.0.

The small size of our initial vocational preparation system owes something to the inadequacies of TAFE's provision for the age group. However the principal causes are the failure of schools to accommodate coherent vocational preparation programs, and the inadequacy of structured arrangements operating within the service sector of the labour market where most teenage employment is to be found. In Germany for example, it is the ability of the dual system to penetrate the service sector, and not the extent of structured training within manufacturing, that almost totally accounts for the very high level of participation by young people in vocational preparation programs in this country (see Table 2). A striking illustration of the consequences of this is the fact that in West Germany the largest single apprenticeship category is shop assistant. In Australia sales assistants (ASCO code 6301) account for ten per cent of all full-time employment among 15-19 year olds, and it is the largest single category of full-time employment among the age group. Almost none however who are employed in this sector receive any systematic vocational preparation in association with their employment.

Features of Vocational Preparation Programs

The second notable feature of our initial vocational preparation system is its continued adherence to a British tradition which rigidly separates so called general education from so-called vocational training. This is by no means typical of the rest of the advanced countries of the world, where a curriculum that combines what we treat as being quite separate is the norm rather than the exception.

Our apprenticeship system is largely derived from a British tradition of treating learning by doing and learning by abstraction as separate and as hierarchically arranged. As a result, apprentices are taught in separate institutions to school students, have a curriculum that contains almost nothing in the way of general education or personal and physical development, and receive a credential that has validity in the labour market but minimal value elsewhere in the education system.

Table 2: Apprenticeship in West Germany and Australia: Some comparisons

	1985	
	West Germany	Australia
Total apprentices as a per cent of:		
All civilian employees	7.3	1.9
All manufacturing employees	22.9	11.6
'Technical'[1] apprentices as a per cent of:		
All civilian employees	3.2	1.8
All manufacturing employees	10.1	10.6
'Service'[2] apprentices as a per cent of:		
All civilian employees	4.1	0.16
All tertiary sector[3] employees	7.6	0.25

[1] Total apprentices less clerical, sales and food apprentices

[2] Apprentices in clerical, sales and food occupations

[3] Employees in wholesale and retail trade; restaurants and hotels; finance, insurance, real estate and business services; and community, social and personal services.

Sources: West German Federal Ministry of Education and Science *Basic and Structural Data 1986-87*. (Estimated on the basis of the 25 largest apprenticeship categories, which account for 81 per cent of all female apprentices and 64 per cent of all male apprentices).; COSTAC *Apprenticeship Statistics 1977-78 to 1986-87*; OECD *Labour Force Statistics 1965-1985*.

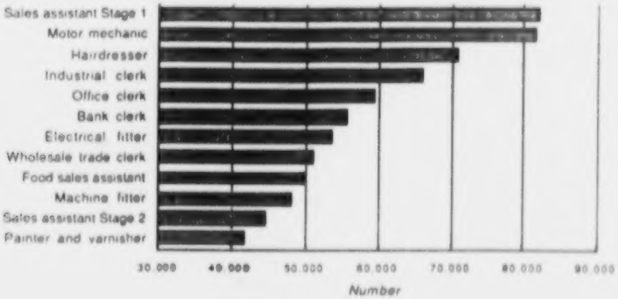

Figure 3: West Germany's twelve largest apprenticeship categories

Source: West German Federal Ministry of Education and Science *Basic and Structural Data 1986-87*.

Apprenticeships and ATS Traineeships exist alongside a Year 11 and 12 system which, in the great majority of cases delivers predominantly a general education curriculum, in separate institutions from those which offer recognised vocational preparation programs, and leading to certificates which have negotiated links to higher education but almost never to the labour market. Putting its efficiency consequences to one side, this has major equity consequences. Those undertaking courses not recognised for higher education entry, and those undertaking courses that are recognised but who have minimal prospect of attaining a sufficient standard to gain entry, are provided with a certificate of lesser currency in post-school life than those who are bound for higher education.

Other countries provide us with vocational preparation models that show far less rigid distinctions between general and vocational education, whether in curriculum, institutional structures or credentials:

- Apprentices in the German dual system undertake a curriculum that combines learning within the workplace and theoretical studies for their trade with general education (which often includes sport). Many of the larger employers in Germany provide a program of on-the-job instruction that contains both contextual and economic studies relating to their industry as well as personal development, technical skills and knowledge.

- In Sweden, the great bulk of vocational preparation for young people is provided in comprehensive high schools which offer both vocational and general education lines of study. Results gained in these lines are entered on a common senior high school certificate, and both can be counted towards higher education entry. Distinctions between the two lines are progressively being blurred.[4]

- Some of the major Swedish manufacturers such as SAAB-Scania and Volvo have established industrial high schools that can be entered after the equivalent of Year 10. These are located within factory premises, and offer a curriculum that combines a high level of technical instruction, employment, general education (including the study of languages) and sport. Those who enter industrial high school programs can still qualify for a senior high school certificate.

- In France, technical baccalauréates are offered both by normal Lycées and by Technical Lycées in areas such as information technology, building, mechanical construction, accounting and sales. They can lead either to employment, to further education and training or to higher education. The curriculum typically requires study of subjects such as mathematics, physical sciences and economics, as well as specialised technical subjects and practical work.

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[4] Details can be found in C.J. Marsh & L.H. Parker (1990). *Perspectives on Post-Compulsory Education.* Perth: Secondary Education Authority.

In all countries where rates of participation in vocational preparation are high, young people are given the opportunity to combine the development of themselves as individuals with the development of competencies recognised by the labour market.

The blurring between the content, location and credentials of the two types of programs makes eminent sense both educationally and from the individual's point of view. It opens up more options, leads to wider career opportunities, and provides a broader and richer preparation for working life. This intuitive argument against a sharp separation between vocational and general education is supported by the results of recent American research which shows that, among high school graduates who do not enter higher education, the most satisfactory labour market outcomes (in terms of variables such as earnings and unemployment rates) are found among those who have combined general and vocational education courses. Their outcomes were found to exceed those of graduates of purely general education and purely vocational education courses.[5]

It also makes sense from industry's point of view. A consistent message to emerge from studies of the skill needs of advanced manufacturing and service organisations is that highly competent workers need both advanced technical skills and highly developed communication, problem-solving and interpersonal skills. These are most effectively developed when their relevance to workplace requirements is apparent.[6]

There are some worrying signs emerging in Australia of consumer resistance to the model of vocational preparation that we offer to young people, and of a growing mismatch between the schooling system and the apprenticeship system.

At a time when retention rates are rising, the proportion of commencing apprentices who were not full-time students the previous year has been rising (Figure 4). This suggests either that employers are preferring young people with some work experience over the products of the education system, or that something is happening in the education system that is turning young people off apprenticeships. Some evidence contained in the most recent publication from the Victorian SCOPE study[7] supports the latter view, in that it shows a decline since 1984 in the proportion of Year 11 students who want to become apprentices.

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[5] S. Kang & J. Bishop (1989). Vocational and academic education in high school: complements or substitutes? *Economics of Education Review*. 8 (2), 133 -148.

[6] See O. Bertrand & T. Noyelle (1988). *Human Resources and Corporate Strategy*. Paris: OECD/CERI, for case studies in the service sector.

[7] Victorian Ministry of Education. (1989). *Scope Report*. Melbourne: The Ministry.

Australian data on the educational levels of apprentices is notoriously patchy. However New South Wales has maintained a consistent time series on the years of schooling completed by commencing apprentices for some time. A twenty percentage point or more rise in Year 12 retention rates in New South Wales since the early 1980s has been accompanied by only a five percentage point rise in the proportion of new apprentices who have completed Year 12. In other words the State's apprenticeship system is having great difficulty in attracting the best and the brightest products of the school system (Figure 5).

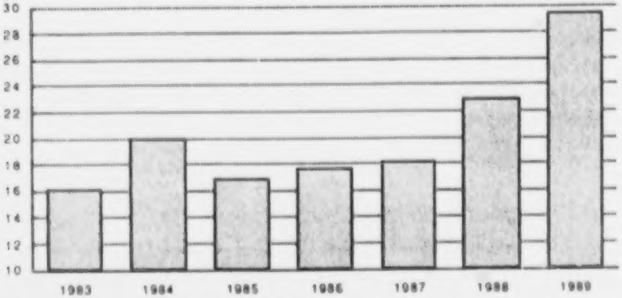

Figure 4: Per cent of first year apprentices who were not full-time students the previous year

Source: ABS *Transition from Education to Work Australia.* Cat. No. 6227.0.

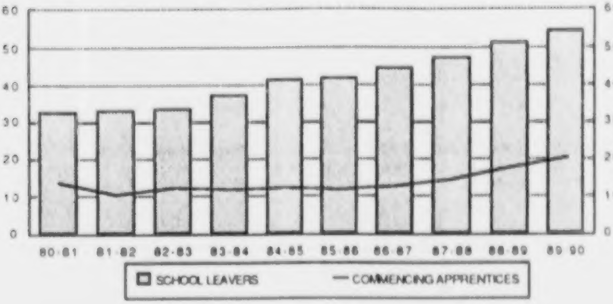

Figure 5: Per cent of commencing apprentices and of school leavers who have completed Year 12, New South Wales, 1980-81 to 1989-90

Sources: New South Wales Department of Industrial Relations and Employment and DEET *Retention and Participation in Australian Schools.*

Even more worrying than this is the relationship between apprenticeship recruitment and early school leaving. Over a period in which,at the most the proportion of New South Wales school leavers who have completed Year 10 has fallen by around 30 percentage points, the proportion of new apprentices with no more than Year 10 has only fallen only by about ten percentage points. Nearly 70 per cent of New South Wales apprentices continue to be drawn from those who have at best completed Year 10, even though these constitute only around 30 per cent of all school leavers. (Figure 6).

Given the strong inverse relationship that exists between academic ability and early school leaving, the obvious conclusion is that the great majority of new apprentices in New South Wales continue to be drawn from a rapidly declining pool of the least academically talented. This hypothesis receives support from the ACER's study of youth in transition, which notes a rise from 18 per cent to 25 per cent in the proportion of the lowest academic achievement quartile entering apprenticeship when the oldest cohort and the youngest cohort included in the study are compared at the age of 19.[8]

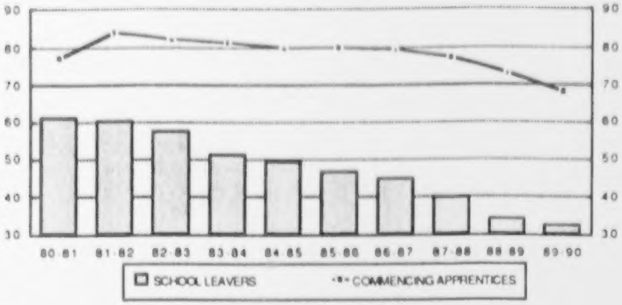

Figure 6: **Per cent of commencing apprentices and of school leavers who have completed Year 10 or less, New South Wales, 1980-81 to 1989-90**

Sources: New South Wales Department of Industrial Relations and Employment and DEET *Retention and Participation in Australian Schools.*

TRAC

For all of the reasons outlined above there is a strong case for developing new Australian models of initial vocational preparation that focus on those areas of the labour market where most young people are found, and which provide a better mix of what previously we have treated as separate in this country.

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[8] T. Williams (1987). *Participation in Education.* Melbourne: Council for Educational Research.

Structure and Key Features

In the twelve months since July 1989, TRAC has been developed in the Hunter region of New South Wales as a national pilot program intended to test ways of improving skill development in the transition between school and the work force and to introduce a new Australian model for the initial vocational preparation of young people.

In its simplest form, the basic framework of TRAC is a combination of school, work and training designed to develop the key personal and occupational competencies that are common to a set of related service sector industries. A key concept in the development of TRAC has been that of the skilled young service industry worker, which encompasses the notion supported by labour mobility data from the service sector, that skill formation arrangements should be capable of fostering horizontal and diagonal career paths in addition to those that are vertical.

In the Hunter, TRAC has combined school, work and training over a twelve month period. This twelve month period has spanned both school and post-school life in two distinct six month phases, with the first of these commencing either in Year 10 or in Year 11 and involving one day per week of work placement and four days a week of school attendance.

The employment phase has entailed four days a week in the workplace and one day a week of off-the-job learning. The program has not been targeted either at those bound for the higher education sector or at educational under- achievers, but at students of average ability who either were proposing to leave school at the end of Year 10, or who had returned to Year 11 but were uncertain of their educational and career goals.

A KEY AIM OF TRAC

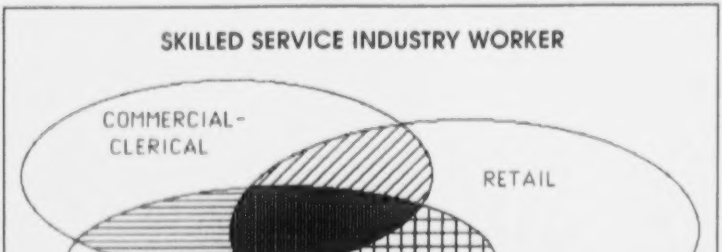

Figure 7:

Within this framework TRAC has a number of key elements, many of which are not unique in themselves, but which in combination amount to an approach which meets both industry's and young people's needs - an approach that is unusual in Australia. These key elements are:

- The development of competencies that are common to the retail, commercial and hospitality industries, with two large competing regional shopping centres containing firms from each of these industries as the principal course of the program;
- Systematic rotation of participants, using a group employment and training arrangement, through a variety of work settings, and the delivery of on-the-job training within these varied settings against a clearly agreed skills schedule;
- An industry developed curriculum encompassing general education, industry knowledge and awareness, personal and interpersonal skills, career development and occupational competencies;
- A full-time program co-ordinator to manage the delivery, assessment and certification of structured learning occurring both within the workplace and off-the-job;
- The nomination of existing workers in each participating work site as TRAC Assistants who act as skill developers and skill assessors, and the negotiation prior to each placement of an agreed subset of the program's skills that are able to be taught within the particular work site;
- The provision of a detailed skills passport to all participants specifying each of the skills gained within the program, together with the awarding of a certificate to successful participants by the Newcastle Chamber of Commerce and Industry;
- A funding model that emphasises industry ownership.

These features of TRAC have been designed to incorporate a number of key objectives:

- To demonstrate the educational value of learning that occurs within the workplace, and as a result to introduce an increased component of vocational preparation into the curriculum of post-compulsory schooling;
- To build a foundation for both horizontal and vertical career mobility by focusing upon skills generic to a number of related industries rather than upon those that are specific to a particular occupation;
- To test a model for the funding of vocational education and training which involves a voluntary contribution by industry to the costs of developing the skills of the workforce of the future;
- To test a flexible skill formation system that is suited to the particular

circumstances of industry sectors in which small businesses predominate, and in which formal training effort is low compared to other industries.

In its first twelve months of this pilot program, TRAC incorporated both a school phase and an employment phase, each of six months. From the beginning of 1991 it will, in the first instance, be located completely within a single twelve month period of upper secondary schooling, and the Year 10 option will no longer be offered. On present indications, the modified version to be introduced in 1991 will form an accredited two unit Other Approved Studies subject within the New South Wales Higher School Certificate. Its present version has been approved in principle as an E course within the structure of the ACT Year 12 Certificate.

The pilot program has involved 78 young people, 8 high schools, 56 firms spread over 76 work sites, and 123 employees at these sites. The firms participating in the twelve months pilot program have been representative of the distribution of employment and the mix of firm sizes in the targeted industries as a whole.

Curriculum and Assessment

One of TRAC's significant innovations has been the pioneering of competency-based learning and assessment methods in Australia's retail and commercial industries, and the location of much of this learning and assessment within periods of school enrolment.

The TRAC curriculum is embodied in two skills schedules, an example of which is given in Table 3. These set out the 124 separate skills to be acquired over the two phases of the program, under the nineteen separate task areas which are shown in Table 4. The skills booklets specify not only the content of what has to be learned, but also where responsibility for assessing each skill lies, whether or not attaining each skill is essential in order to gain a pass in the program, and the rules which govern the award of different grades of pass in each phase.

These skills schedules are among the principal forces which drive the program, and were developed using the modified DACUM model adopted in 1987-88 by the Western Australian Department of Employment and Training to convert its trade training system from a time-serving to a competency-based system. The model has two cornerstones: a central role for industry in participating in shaping the curriculum; and a deliberate attempt to ensure that all parties to the learning process are familiar with the total curriculum: its content, the locus of assessment responsibilities, and rules governing the awarding of grades. In the case of TRAC this has meant copies of the skills booklets being provided to all students, employees, employers, TRAC Assistants, parents and schools prior to the commencement of each intake. It has also meant the negotiation with each participating work site of what is to be taught from these skills lists prior to the commencement of each placement.

The use of rotation, managed by the program co-ordinator, has been the key method of ensuring that all participants have the opportunity to acquire all the essential skills contained in the skills schedules. Where limitations on the resources contained in particular work sites have led to difficulty in particular cases in the achievement of essential skills, supplementary training has been provided by the TRAC Centre to ensure that all participants have the opportunity to successfully complete the program.

Table 3: TRAC employment phase skills list extract

SKILLS		ASSESSMENT RESPONSIBILITY
3. TASK AREA:	**CASH HANDLING AND CREDIT CARDS**	
ESSENTIAL SKILLS		
Knowledge of:		
3.1	Cash and account procedures and documentation	**WORK**
3.2	Floor limits and authorisation procedures	**WORK**
4. TASK AREA:	**INDUSTRIAL RELATIONS**	
ESSENTIAL SKILLS		
Knowledge of:		
4.1	Appropriate retail, clerical and hospitality awards	**TRAINING**
4.2	The role of unions in retail, commercial and hospitality industries	**TRAINING**
4.3	Conditions of employment	**WORK**
4.4	Rights and responsibilities as an employee (e.g. sick leave)	**WORK**

Responsibility for assessing skills is divided between the workplace, which is the principal focus for assessment, the school, and TRAC's off-the-job centre. In the last two cases, assessment methods have included performance testing, written tests, assignments, group projects and oral assessments. All work place assessment is conducted by two people: the TRAC Assistant who has directly worked with the young person, and either the manager, or another senior employee at the particular work site. Assessment occurs at the end of each placement undertaken by the program participant. TRAC has no weighty handbook of procedures to be followed, and quite deliberately the criteria to be used by those within each workplace to assess whether or not a skill has been achieved have not been specified in detail. Their judgement is trusted on the grounds that they know their job better than any one else. However the multiple assessment that results from the use of the rotation method provides a check on the reliability of individual assessments, and where doubt exists the program co-ordinator is available to discuss the matter.

All those commencing TRAC receive a detailed TRAC Record which specifies all of the skills attained during each phase of the program. Those who pass each phase also receive a certificate awarded by the Newcastle Chamber of Commerce and Industry which specifies the grade of pass achieved. This is the first instance in Australia in which a chamber of commerce has acted as the certifying authority for an education and training program, and represents the beginning of a role for such bodies and is analogous to the role of industry chambers in the German dual system of apprenticeship training.

In addition to the formal curriculum, the employment phase of TRAC has included project work designed to enhance information gathering, communication and team-work skills, and additional material on career planning and thinking and problem-solving skills has been included. Accompanying the move to locate TRAC more firmly within the curriculum of upper secondary schooling has been a more explicit alignment of the curriculum with generic occupational competencies, with those to be developed within a service sector context and to be appropriate to initial workforce entry. The framework used for this has drawn heavily upon Carnevale's research on workforce basics conducted for the American Society for Training and Development[9], and upon a recent review by Levin and Rumberger[10] of the literature on the 'new competencies' required by workplaces with advanced technologies and participative work practices. The framework being used to align the existing skills list to these generic occupational competencies is shown in Table 5.

On one level the school phase of TRAC appears to have much in common with traditional school work experience programs. Despite this appearance, one of its major innovations has been the transforming of work experience during school hours to a far more coherent and structured phenomenon. This has occurred through:

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[9] A.P. Carnevale (1990). *Workplace Basics: The essential skills employers want.* San Francisco: Jossey-Bass.

[10] H. Levin & R. Rumberger (1989). Education, work and employment: present issues and future challenges in developed countries. Presented at the XXVth Anniversary Conference of the International Institute of Educational Planning.

- the attachment to work experience of an industry developed, competency-based curriculum that focuses upon generic industry skills;
- the systematic management of the learning that occurs within the workplace during work experience;
- monitoring and quality control of students' placements; and
- formal assessment and certification of the learning that occurs, with both schools and industry having a role to play in this assessment.

Table 4: TRAC pilot program curriculum task areas

TASK AREA	SCHOOL PHASE	EMPLOYMENT PHASE
Industry knowledge and awareness	✓	✓
Communication skills	✓	✓
Human relations skills	✓	✗
Personal appearance and presentation	✓	✗
Code of conduct at work	✓	✓
Maths skills and basic accounting	✓	✓
Cash handling and credit cards	✓	✓
Computer and register skills	✓	✓
Product knowledge	✓	✓
Selling	✓	✓
Security	✓	✓
Housekeeping (Cleaning and	✓	✓
maintenance)	✓	✗
Safety	✓	✓
Marketing and promotion	✗	✓
Time management and organisational	✗	✓
skills	✗	✓
Stock control and management	✗	✓
Personal development	✗	✓
Visual merchandising	✗	✓
Industrial relations		

Outcomes

(i) The young people

My boy is a different boy you know. He's come out with probably a lot more communication with other people. [Parent]

This way it gives them a shorter avenue to deciding whether they want to finish school or get out into the work force. Some of them have said after *phase 1 that no, they don't want to come into the work force yet. I think that's fine. It's a good thing because it is a decision.* [Employer]

They feel themselves maturing, growing up, getting better. [Careers Adviser]

Table 5: Work place basics - essential employment skills

Learning skills	**Developmental skills** • Self-esteem • Goal setting • Career development and planning	**Influencing skills** • Organisational effectiveness • Leadership • Peer training
Basic competency skills • Reading • Writing • Computation **Group effectiveness** • Interpersonal skills • Team-work/working in groups/co-operation • Negotiation • Multicultural skills	**Adaptability skills** • Problem-solving • Reasoning • Creative thinking • Initiative • Obtaining and using information • Decision-making • Evaluation • Planning	**Communication skills** • Oral communication • Listening skills • Written communication

Adapted from Carnevale, A.P. (1990). *Workplace Basics: The essential skills employers want.* San Francisco: Jossey-Bass & Levin, H. & Rumberger, R. (1989) Education, work and employment: present issues and future challenges in developed countries. Presented at the XXVth Anniversary Conference of the International Institute for Educational Planning.

Table 6: TRAC participant summary

	Commenced	Completed	Graduated[1]	Entered Phase 2
Phase 1 1989	41	40	35	14
Phase 1 1990	37	24	20	12

[1] Refers to those who successfully completed all essential requirements.

At the most basic level, the outcomes from the pilot TRAC program can be seen in the skills gained by participants. Of the 78 who took part, 64 completed phase 1 and 13 completed phase 2. 55 met all of the essential requirements for phase 1 and graduated from it, and 11 successfully graduated from phase 2. An additional 12 have entered a second phase 2, which commenced in July 1990.

At another level, the program's positive outcomes can be seen in the principal destinations of those who took part. Particularly for those who undertook phase 1, TRAC has overwhelmingly acted as a pathway to further education and training, either in school or out of school.

Of the 76 phase 1 participants whose destinations are known:

- 36 (47%) returned to school;
- 26 (34%) entered phase 2 of TRAC;
- 4 (5%) became apprentices;
- 1 (1%) took up a clerical traineeship;
- 2 (3%) entered a full-time TAFE secretarial course;
- 6 (8%) entered full-time jobs that do not have any further education or training associated with them; and
- 1 (1%) entered a part-time job without taking up any further education or training.

In summary:

- Of the total, 69 (91%) continued on to some form of education or training;
- Of the 40 who left school, 33 (83%) entered some form of further education or training; and

- None became unemployed.

The high rate of continuation in schooling is particularly encouraging, given the relatively low Year 12 retention rate in the Hunter region and given that the program was targeted at those contemplating leaving school after Year 10 and those entering Year 11 without clear educational goals. For many such students the experience in TRAC acted as a valuable means of clarifying their educational and career goals.

Of the 13 phase 2 participants whose destinations are known:

- 1 entered a clerical traineeship, and 1 gained a hairdressing apprenticeship;
- 1 is employed full-time and undertaking a part-time jewellery course;
- 2 are combining part-time employment with related part-time study;
- 4 have full-time jobs but are not at the same time studying;
- 3 have part-time jobs and are not at the same time studying; and
- 1 is unemployed and proposing to enrol in a full-time TAFE course in 1991.

All of the twelve who are employed have obtained positions in the industries targeted by TRAC. Eight of these positions are with firms that participated in the pilot TRAC program. Two of the phase 2 group have continued as employees of TRAC's group employment and training company, and have been placed with host employers. On their agreement to undertake further part-time study related to their employment, skill bonuses additional to award rates have been negotiated for them with the host employers, reflecting the skills that they gained during the program. In addition, all fees associated with their TAFE courses are being paid by the group employment and training company. One participant who is doing a TAFE Retail Certificate course, has been granted advanced standing in the course on the basis of his performance in TRAC.

However the most striking outcome from TRAC for the young people participating, is not so much these quantitative measures of skills gained and post-program destinations, as the consistency with which parents, teachers and employers involved in the program commented on impressive qualitative gains in maturity, confidence and social skills among the participants.

> *TRAC is not just about learning the industry procedures, it's also about developing themselves - building self-esteem. I saw, at their graduation, young people that seem to have the confidence that goes with knowing what they're about, and the understanding of why they are there.* [Employer]

> *I'm sure that everybody that I met in phase 2 was much more*

> *mature than when I met them on the very first night when they entered phase 1. It shows. It certainly shows that they have been exposed to a work environment. They were timid school kids when they first started who really didn't know where they were going.* [Phase 2 Employer]

> *I've noticed the children who come to our place have got more pride in themselves, more confidence in themselves, their dress.* [Parent]

Many of the young people taking part in the TRAC pilot program were also aware that its outcomes went beyond narrowly conceived occupational training.

> *There are times we have learned important things here you couldn't have learned anywhere else. Like public speaking, ways in which to communicate with your peers, how to get along with your peers. We did a lot of how to deal with customers as well, that was very beneficial, it prepares you to deal with different kinds of people.* [Phase 2 Employee]

> *TRAC's sort of adjusted us to cope, to know what to expect when we get on our own.* [Phase 2 Employee]

> *TRAC's to help you to adjust mainly, gets you from a school student to an adult almost to a certain degree.* [Phase 2 Employee]

Comments such as these attest to the educational value of properly structured and managed learning within the workplace, and support the value of incorporating more systematically, the workplace within the curriculum of post-compulsory schooling.

(ii) Industry

> *It gives them extra skills in how to communicate, how to train people in new skills. It gives them more confidence and they can say 'Look I trained this person and they turned out OK' so it develops them as well. It also gives management an idea of some of our people's potential.* [Employer]

> *I think in developing our managers - how to train and manage people - that's something we're benefiting from, because they're becoming more open to spending time with people and training them properly. The staff have welcomed it very much.* [Phase 2 Employer]

For many firms TRAC has represented their first involvement with a systematic and structured skill development program. It has provided them, in many cases also for the first time, with a comprehensive description of the entry level skills required by young people moving into their industry. The need to involve an existing employee at each work site in developing the skills of young people resulted in many of the TRAC Assistants for the first time becoming on-the-job trainers and becoming aware that their skills were wider than they had previously thought. Many employers clearly recognised the benefits in the form of the development of their own staff that flowed from becoming involved in TRAC. TRAC has represented the beginnings of the introduction of a training and skill development culture for many of the firms participating.

> *I gave her the job of showing the TRAC person what to do. She also learned parts of the trade, the management side, which she had no knowledge of at all.* [Employer]

> *Our three young TRAC Assistants are very good sales people. They've moved up in their job through exposure to TRAC.* [Phase 2 Employer]

This, in turn has stimulated a demand for increased levels of skills among many of these firms. An outcome of this demand has been some initial provision within the TRAC Centre of courses in supervisory skills and on-the-job training skills for local industry. The TRAC Centre also represents a readily accessible training facility for many firms in the Lower Hunter, and it has been hired for a range of training and new product dissemination sessions, as well as for meetings. These activities have been, so far only a relatively minor part of the total TRAC project.

Conclusion

'I want to indicate to those who have been responsible for this pilot program that we from our point of view, at the level of the Federal Government, are keen to see how we can integrate this experience, learn from this experience, and ensure that this might provide a new range, a new diversity in the range of post-secondary opportunities for young people so that more and more of them can make that successful transition from school to work. If we are able to do that, those who have been responsible for this program . . . can bask in the birth of a new idea which I'm sure will be taken on and carried far further than the Hunter region and Newcastle and may well become an important additional model for the rest of Australia.'

The Hon. John Dawkins, Commonwealth Minister for Employment, Education and Training: TRAC Graduation Ceremony
June 29,1990

SUMMARY OF DISCUSSIONS FOLLOWING RICHARD SWEET'S PAPER: TRAC: A COMPETENCY-BASED LINK BETWEEN SCHOOL AND WORK

Both groups dealt fairly comprehensively with the idea of integrating vocational education components into the secondary school system. The benefits of the now defunct technical high school were discussed. Interestingly there has been in New South Wales, some consideration given to the reintroduction of such a system. (Post-Year 10 with close ties to local companies.) It was generally agreed that a hybrid mix of general and technical education comparable to the French system and described by Richard Sweet is preferable. A New Zealand system similar to this was discussed.

Although this model may be a desirable one it was agreed that a conflict between individual needs and industry could exist. Furthermore, difficulties in planning such a program and of balancing the long- and short-term needs of both industry and the individual were envisaged. It was agreed that a TAFE/school/industry partnership may be a desirable model. In relation to a model which included TAFE, it was considered desirable that TAFE teachers would benefit from experience in industry or commerce since real experience is far more useful than observation.

As to the TRAC program itself, since it is an external agency - not government, or employer-based, it is able to more effectively gain access to a wide range of employers, students, etc. In addition, the commitment from the local community, specifically the Chamber of Industry and Commerce lends the scheme a credibility it may not otherwise have.

WHAT INDUSTRY WANTS FROM THE TRAINING SYSTEM

Bryan Jones
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Introduction

It is well recognised by both industry and the trade union movement, that the training and retraining of the workforce is one of the most critical issues confronting the Australian economy today. Technological change, the changing structure of industry and the changing demographic characteristics will demand a vastly improved training effort.

General acceptance by employers that more effort must be put into training as part of overall expansion of the education and training effort sets the scene for a close working relationship between industry and the training system.

Demographic issues are beginning to make an impact on the Australian labour market, though to a lesser degree than is being experienced in European countries. An ageing population, and a reduction in the number of young people entering the labour market will mean that industry will be less able to rely on new entrants to make up their skill needs.

Employees who are already in the labour market will, as a result of this demographic change, will need to be retrained.

Enterprises will need to carry out careful forward planning for their skill needs. They will need to plan much more carefully than ever before to ensure the skills they need will be available.

Skill shortages which have been evident within Australia for many years are affecting the ability of enterprises to restructure.

Employees are also realising that the key to job security, increased living standards and job satisfaction will only be available through improved education and training. This realisation will place increasing demands upon employers and the training system, as employees begin to discriminate between employers, their choices based upon the training offered and the perceived career paths available.

Certification, accreditation and articulation will become essential features of any training program offered by employers. Overseas studies have confirmed this trend, as more and more enterprises offer formal accredited courses and employees shop around for good training companies. The fear that well trained employees will leave a company offering good training seems groundless since it is improved training and skill development that will in future make the workforce more stable.

Basic skills developed at entry level training or acquired through the school system will be a fundamental requirement for the future. The deep-seated dissatisfaction of the education system shown by employers will need to be overcome by the introduction of subjects which develop:

- creativity;
- career awareness;
- basic employment skills;
- communication skills;

at the same time offering good general education.

In Sydney one such program has been commenced by the MTIA/MTFU Career Development Project at Doonside High School. This program, called Manufacturing Technology will lead to accreditation by the Education Department as a 2 Unit Higher School Certificate Course which will also allow articulation into TAFE and industry courses.

The introduction of the Training Guarantee Act from July 1st 1990 will ensure a much greater commitment to training by many employers who have been content to leave training to others in the past.

The challenge is open to the training system to provide the required training in the most suitable and appropriate way.

Challenges for the Training System

Training systems and providers of programs will need to be alert to the changing role of Australia's labour market requirements and recognise that:

- Australian workers are at least equal to workers in the rest of the world and will need every opportunity to realise their talents;
- A demanding global economy will require a flexible, efficient training approach;
- Changing from a commodities market to one producing high value-added goods and services will require different skills and the re-examination of our present training systems;
- Price is no longer the way to a competitive edge. Quality and reliability, advanced technology and more discerning customers will also demand changing training practices to be able to cope with these changes.

Informal/Formal Training

It would be fair to say that a great deal of training is being carried out within Australian industry though in a non-structured informal manner. The

Training Guarantee Act will be a major factor in changing a great deal of this training from informal to formal. Already we are besieged by brochures and pamphlets advising how to take advantage of services such as - Train-the-Trainer, Quality Control, Leadership Skills, etc. It appears that training providers see the Training Guarantee Act as an Aladdin's Lamp - all we have to do is rub it and make a great deal of money.

Enterprises will soon become sick of the 'Great Training Robbery' unless the programs offered accommodate the needs of the enterprise and its employees.

Award restructuring is well under way in more than 50% of industries throughout the country and this alone will place tremendous stress on the training systems and providers. Much of the training required for award restructuring should take place in-house and could well require trainers and training agencies to change the accepted delivery method. For example trainers may have to attend the workplace of the employee, rather than the employee attending the training institution. This approach would substantially reduce the cost of training to an enterprise and put training into the correct context of being an aid to employers.

Informal training would be the first area to be improved and perhaps the most significant.

Many employees who may have a reluctance to attend institutions and going 'back to school' would be more receptive to in-house training programs. There would be no point in having a national, institutionalised training effort if employees did not want to take part. This in-house training would also be helpful in reducing the costs which are expected to be shared by employer and employee.

Flexibility of the Training System

Any further efficiencies to be gained from increased training expenditure will only be achieved if the training system and training providers can offer a flexible approach to training delivery. The new common core modules that have been developed by TAFE in conjunction with MTIA/MTFU National Career Development Project for the three new trade streams of:

- Mechanical Trades
- Fabrication Trades
- Electrical/Electronic Trades

are typical examples of the need for increased flexibility. Under the old TAFE trade courses, students were trained in the lock-step method and not allowed to be different. Whole classes of students were locked into a course and all had to progress at a similar pace throughout the year.

Successful completion of the course was achieved by having the required number of attendances, obtaining the minimum pass mark or better, and completing the prescribed number of practical jobs. Should the student not be successful they had then to repeat the whole year again. This was not a user-friendly system nor was it flexible.

The new modular based program will be much more user-friendly and flexible.

Each module, based upon approximately 40 hours of work, will normally be a stand-alone segment which students can attempt, and if needed, repeat fairly easily should they fail, without having to wait another year. These modules will also be competency-based showing a measurable acquirement of skill and knowledge and have the ability to be self-paced, thereby allowing each student to progress at his/her own pace. Students will no longer be tied to an inflexible system based upon time.

Award restructuring will of course introduce other elements to complicate the issue of self-pacing and module selection. Whilst the student may have selected the Mechanical stream with its range of modules, any need to cross-skill will demand selection of modules from the Fabrication and or Electrical/ Electronic streams, thus introducing complications for the provider.

To provide the flexibility that industry requires, could in reality mean that each college which offers a particular stream would have to provide each module in the course on demand or the flexibility would be lost. It is hard to imagine that in the current restructuring of the TAFE system that this is a possibility. Perhaps there is a need for colleges specialising in various modules. The student can then move from college to college. Costs would be drastically reduced by this method.

As mentioned earlier it may be that providers will need to deliver programs in plant rather that in the institutions. Private providers are accustomed to this system although it would be a dramatic change for the TAFE system. A change such as this would prove to be acceptable to TAFE as it would require less 'Bricks and Mortar' expenses for an already stretched system. The increased flexibility of training systems will be enhanced by the ease of updating modules, thereby maintaining their relevance without major rewrites.

Adult Training, Retraining and Prior Learning

Whilst many training providers are accustomed to the training of adults, award restructuring and the consequent training that this will demand, will require new approaches for people who have not been in the education process for many years. Similarly those migrants who may have a poor command of English, as well as those who have poor basic educational skills and yet have a desire to advance their careers through training will require special delivery methods for their training.

A major source of future tradespeople could conceivably come from the great bulk of semi-skilled workers who see skill enhancement as a way of progressing their careers further within their own enterprises, or perhaps gaining increased mobility in the industry.

Training systems that have traditionally catered for young school leavers will need to change their approach quite dramatically to accommodate older students and to allow them to progress at their own pace. Adults are more likely to be self-motivated, self-directed and require less supervision than younger people. Many people who have been in the labour market for years would have, through some formal or informal training, work skills for which they should gain credits towards other training being undertaken.

To prevent adults from being frustrated by lack of progress, the system must recognise prior learning and accommodate this into a means of progressing through a program at a pace to suit the individual.

Competency-based Approach

Perhaps the most difficult change for many training providers and the training system in general to make is that from a traditional time-served approach to a competency-based one.

Competency-based training will significantly improve skill development and productivity of employees by focusing on the learning outcomes achieved, rather than the input, such as qualifications, length of training undertaken, etc.

It will be easy, because of the difficulties encountered in implementing competency-based training, to focus or revert back to inputs rather than concentrating on the more difficult, though more rewarding focus of outputs.

The modular approach to training will make competency training easier to apply and this will also go a long way towards a more flexible and responsive training system. Students will be able to structure training very much to suit their work patterns and life styles.

Competency-based training can be delivered in a variety of ways and methods including group teaching, on the job, and self-paced.

Again increased costs will be incurred if the traditional teacher-centred method of delivery is practised: self-paced training could conceivably shorten training time required once the change to facilities is made. This in itself will result in reduced costs and more effective utilization of equipment and buildings. Broad national standards will be essential to ensure portability of skills acquired, with moves towards competency-based training reflecting these national standards.

How Will the Training System Cope with the Demand?

Once employees react to the challenges and prospects provided by award restructuring, the demands placed upon enterprises will be greater than ever seen before: this may result in providers being expected to perform miracles.

A number of factors will have major impact on the perceived demand for training and ultimately the ability of providers to satisfy this demand. Resources will be stretched to the limit and care must be taken not to rush into the supply of facilities that may suit the demand only for a short time.

The first factor will be created by the movement of people from the old classifications to the new, with many people realising that they have shortfalls in skills required to be reclassified. This training is expected to be required quickly to allow the reclassifications to be implemented with a minimum of disruptions and the maximum benefit to all. Much of this training may well be carried out on the job rather than attendance at formal institutional training programs. This in turn will create a demand for train-the-trainer programs to be developed and offered.

The second factor to consider is the long-term training needs that will be required as a result of award restructuring. New employees, employees who want to progress from one classification to another will all create a demand for training on a continuous basis. This will necessitate a mix of providers, in-house, private, institutional as well as a variety of delivery modes such as distance learning.

The third significant factor will be whether or not enterprises reward employees for skills acquired, or for skills used. The Industrial Relations Commission's decision handed down applied to payment for skills used. It is plain to see that way an enterprise reacts to demands from employees will determine the amount and type of training required.

Accreditation and National Consistency of Standards

Much has been made of the award restructuring process and the expectation that it will lead to enhanced career paths, a more highly skilled, flexible and motivated workforce, an incentive driven pay structure, and an efficient and competitive industry. This expectation and its resultant benefits in productivity and performance will be dashed if no allowance is made for skills and knowledge acquired in one position, being transferred to the next position. For too long there has been no credit transfer, but no one wants to learn things twice. Credit must be given for what has been learnt at school, on the job, or at technical college. We have all seen apprentices who at the completion of their indentures wish to progress to an Associate Diploma or degree only to find that there is little or no credit for the hard work and study already undertaken. Many people who have the ability to progress have become discouraged by this fact. Not only will many more people be encouraged to progress by means of a credit transfer system, but also duplication of resources will be eliminated the resulting in cost efficiencies.

In addition to articulation and credit transfer it is essential that national consistency is applied across all facets of the training system which will allow portability of workers' skills and therefore lead to a much more efficient and effective labour market.

Australia can then be internationally competitive and a force to be reckoned with.

In summary, industry will require from the training system a flexible, responsive approach to modular competency-based courses to national standards which will allow credit transfer and articulation.

SUMMARY OF DISCUSSIONS FOLLOWING BRYAN JONES' PAPER: WHAT INDUSTRY WANTS FROM THE TRAINING SYSTEM

The discussion following this workshop presentation focused on TAFE training provision as it relates to industry. The points discussed are summarised by the following:

- do students seek skills or awards since awards are often perceived as essential requirements for advancement? Perhaps broad vocational skills should be taught in high schools although then of course they lack relevance or applicability.

- the future role for TAFE in the provision of training is equivocal since more emphasis is being placed on training in the workplace, although TAFE will be called upon to conduct skills audits to determine training needs as well as conducting challenge tests. TAFE needs to strengthen links with industry to facilitate effective training.

- assessment is a significant issue which affects both industry and TAFE, particularly with the move towards competency-based assessment. Who conducts the final competency assessment for a tradesperson? Often TAFE does not have the equipment necessary to assess competency. Should competencies/skills be reassessed at regular intervals and if so, by whom?

- problems are envisaged with those industries who supply training but who cannot supply the full range of skills required, although the tradesperson's subsequent mobility does not appear to be inhibited by this. Group schemes should be expanded to overcome this.

- TAFE staff should be provided with marketing skills to go out into industry to sell their product - their training expertise.

A WHOLE COLLEGE APPROACH TO COMPETENCY-BASED SELF-PACED DELIVERY

Alan Wickenton
Richmond College of TAFE
Victoria

Overview 1975 - 1990

Richmond College of TAFE has been delivering vocational training courses in a self-paced, competency-based mode since 1975.

In 1975 Richmond's Panel Beating Department offered apprentices a self-paced program for the first year of their apprentice course after observing a one year pilot program conducted at Sunshine Technical School the previous year.

The Richmond initiative was supported by a syllabus that had been written during 1974 as part of the Sunshine program.

The syllabus was written and presented as a sequenced series of performance objectives aimed at implementing the criterion-referenced evaluation strategies put forward by Robert F Mager in his book **Preparing Instructional Objectives**.

Since 1975 Richmond's teaching methods have been influenced by the work of many other educationalists including Bloom, Block and Carroll.

By 1981 all apprentice courses at Richmond were self-paced, competency-based, and supported by management and service systems developed to meet teaching and administrative needs as required.

A June 1990 'snapshot' of Richmond's activities showed that their teaching and course management systems have been developed to a stage where the following features had become established practices in the College:

- Students able to pace learning to match their abilities and not those of class or group pace-makers;
- Students able to enter and complete courses at any time;
- Students able to learn single skills, or several skills on an individual needs basis, at any time, without having to wait for classes or groups to form;
- Students able to attend apprentice courses at times arranged to accommodate employers during periods of high or low demand in their workshop loadings;

- Students able to monitor their own performances and access reports at any time;
- Students able to have relevant prior learning recognised and readily articulated into course credits;
- Students able to regularly measure retention of previously learnt skills and knowledge;
- Students able to resume learning on objectives they had reached prior to periods of absence;
- Students able to rearrange learning programs to match the skill and knowledge priorities of employers;
- Students able to get individual assistance from teachers to help overcome specific learning difficulties without disrupting other learners;
- Students able to evaluate their own performances and demonstrate learnt competencies;
- Students able to provide feedback to the College on the quality of course materials, instruction and services.

Competency-based Standards, Self-paced Delivery

Learning at Richmond is driven by performance objectives. All performance objectives have three distinct parts, each clearly identified for students and teachers.

The three parts to performance objectives are:

- Performance. A clear statement describing the task of overt behaviour required to show that the student has learnt the skills and knowledge intended by the objectives writer.
- Conditions. A clear statement describing the conditions under which the performance is to be done. It sets the environment, equipment and material parameters.
- To Pass. (Standard). A listing of the key performance indicators used to check a performance. To gain a pass, and to have the performance declared as competent, each performance must meet the standards set by every indicator listed in this section.

Performance objectives when properly applied in a self-paced teaching situation, reverse the time and learning expectations of traditional, lock-stepped, class arrangements. Lock-stepped teaching has the time allowed for learning in class fixed with outcomes being variable, while self-paced teaching has fixed outcomes with the time allowed to learn being variable.

Currently, the term competency, in the context of measuring and delivering training is not being interpreted consistently. Richmond agrees with the National Training Board's view that the term competence can be used to describe the ability to perform individual tasks, to describe the possession of knowledge and understanding and in the context of management, the term can be used to refer to several aspects of personal effectiveness.

It is the National Training Board's view that competence should be defined as:

> the ability to perform the activities within an occupation or function to the standard expected in employment.

A Whole College Approach

The needs of the competency-based, self-paced teaching systems at Richmond have influenced the way most of the management and teaching activities of the College are organised and performed.

The following sample of activities is offered to enable comparisons to be made between activities at Richmond and those of more traditional teaching organisations.

Enrolment

Continuous or rolling enrolment practices are required to keep student-teacher ratios at efficient levels. Self-pacing enables students to undertake and complete learning at rates commensurate with their individual abilities and this factor, when combined with continuous enrolment practices results in course completions being recorded every week of the College year.

To maintain a smooth operation it is necessary to enrol replacements for graduates as quickly as possible. Experience has shown that when the continuous enrolment process is disrupted the management of teaching programs can suffer adverse effects for up to two years.

The practice of students enrolling and begining courses at any time of the year needs to be continually explained and sold to apprenticeship administrators, employers, apprentices and students. Many people see the process as a radical departure from the norm and have difficulty understanding that it is possible to commence a course at any time of the year.

Teaching

The application of competency-based, self-paced learning requires teachers to become the managers of the learning of individual students. Most interaction between teachers and learners is done on a one-to-one basis. Self-instructional learning units, produced in a variety of formats, enable students to progress in their own learning as rapidly as possible by avoiding most of the restraints inherent in traditional group based learning environments.

Instructional units can be purchased from commercial sources, or other schools, but most are produced within the College. A quality control program is used to monitor the effectiveness of instructional units, learning strategies and teaching.

Teachers produce most of the instructional units and are able to gain advice from educational technologists as required.

Resourcing

Continuous enrolments and self-paced teaching means that teaching areas need to be able to meet the equipment and material needs of learners undertaking any of the course objectives at any time.

The numbers of students requiring particular materials or equipment at any time are usually small and manageable. Experience has shown that it is not only possible, but desirable, to manage with smaller numbers of expensive items of equipment which can be updated more often as technologies improve.

Teachers have been identified as the people best placed to manage the budget and resources of teaching areas because of the close linkage between student learning rates and resource and equipment needs.

Recording/Reporting

Recording the daily achievement of every student's course objectives is organised and managed by teachers, while complete course records are maintained by the College. In some courses students maintain their own computerised records.

Students and their employers have access to up-to-date progress reports at any time and learning difficulties can be identified and dealt with as they occur.

Student records are designed to give positive feedback by listing only the achievement of learnt competencies. Feedback, provided by such easily accessed, positive, up-to-date records is seen as a highly effective means of motivating students.

Organising/Management Structures

Teaching departments are organised to manage most of their day-to-day requirements and have significant delegated responsibilities. Each department is managed by a committee. The size of a committee is determined by the size of a department. The head of department as chairperson is joined by selected members of the teaching staff who head teams of teachers who, apart from performing their required teaching duties, assume specific responsibilities for the administration, resource or curriculum needs of the department. These specific responsibilities are undertaken by the teams in their non-teaching duty hours.

Teachers are able to nominate themselves to be members of, and work in, one of the teams each year. Over a period of three years it is possible for a teacher to gain a sound understanding of facets of management and work that were once seen as the preserve of heads of departments and other specialised staff.

The College has embraced a 'flat' management structure aimed at minimising the number of levels involved in day-to-day decision-making.

The expectations of the College are incorporated in annual performance agreements negotiated with each department.

Monitoring/Performance Indicators

Regular reviews are conducted to determine the effectiveness of department performance agreements and changes can be negotiated.

Teaching departments are expected to display efficiency by increasing student throughputs over base agreements and the expectation is encouraged by an incentive scheme.

A student attitude survey is completed by all students as they complete courses and the information gained enables managers and teachers to see how the department and the College is performing. Many staff development programs have been based on survey findings.

Quality control is seen as a necessary adjunct to competency-based, self-paced teaching methods. Managers and teachers have found it necessary to be able to determine the effectiveness of the teaching materials used and measure the retention of skills and knowledge gained by students. Currently two quality control schemes are in place at Richmond.

The most widely used scheme is managed by having students repeat randomly collated samples of competencies previously learnt and passed. When a failure is identified an analytical process is undertaken in an attempt to determine the reason.

The other system gains feedback from computer-based knowledge tests and enables teachers to identify weaknesses in theory-based teaching materials and methods.

Current Initiatives

The College is working on two high priority initiatives; the establishment of its Skills Supermarket and a National Competency-Based Training Centre.

The Skills Supermarket project is in its second year and has proved to be an efficient means of meeting many of the emerging award restructuring and post-apprenticeship training needs of automotive, sheetmetal and allied skill workers. It also enables long-term unemployed and those who have suffered discrimination because they are unable to enter apprentice trade courses, to gain employable skills.

Skills Supermarket clients are able to access and choose skills they wish to learn from a central data base. Clients pay for their tuition on an hourly basis with the College recouping all costs involved. Skills Supermarket students may enter learning programs at any time.

The number of Skills Supermarket hours each training department is expected to offer each day is included in department performance agreements.

The National Competency-Based Training Centre is a new project supported by DEET funding. It is expected that the Centre will play a significant role in helping TAFE and other training bodies meet the 1993 national goal for significant advances in the implementation of competency-based training. The Centre is expected to draw heavily on the accumulated experience of the managers and staff of the College.

It is expected that the Centre will move rapidly towards delivering a significant part of its course materials in competency-based, self-paced formats.

Future Directions

The College believes it is well placed to respond quickly to accommodate the vocational training demands that have resulted from government policies and developments that have moved training to the top of Australia's economic agenda.

Next year the College expects to be involved in the continued development of the existing competency-based, self-paced teaching system, as well as in the following areas:

- The development, in conjunction with the automotive electrical industry, of cohesive on- and off-the-job training programs;
- The conversion of a two year interpreter training course from lock-stepped to competency-based, self-paced delivery to better meet the learning needs of students and the interpreting needs of the hearing impaired community.
- The development of initial strategies aimed towards increasing the earning capacity of the College and reducing its reliance on recurrent funding from government sources.

SUMMARY OF DISCUSSIONS FOLLOWING ALAN WICKENTON'S PAPER: A WHOLE COLLEGE APPROACH TO COMPETENCY-BASED, SELF-PACED DELIVERY

The discussions following this paper looked at CBT briefly from the perspective of the TAFE teacher. The participants agreed that competency-based, self-paced delivery fostered a sense of achievement in teachers because it allows them more time with slow students, provides feedback on their teaching methods, as well as providing them with management skills learned as a result of their management of the CBT program. The group agreed that this sense of achievement was important for the TAFE teacher since change (specifically in teaching methodology) can be both frustrating and threatening. Staff development in CBT for TAFE teachers was perceived as very important. Also particularly important was initial teacher training and that potential teachers are taught the philosophy and techniques of both CBT and self-paced learning. The group believed that it may be beneficial for teachers unfamiliar with CBT and SPL to 'shadow teach' at colleges where these systems are already well established.

MEDIA PACKAGE: ASSESSING COMPETENCY IN THE WORKPLACE

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Part One: Competency Assessment - What's it all about?

What's new about competency assessment? In one form or another, and in different areas, assessment based on competence has been around for a long time. But competency assessment in the vocational area in the form in which it's now being introduced will have increased benefits - for employers, for employees and for industry as a whole.

The assessment process will be much more systematised. So it will be fairer - and more reliable. And now it will be an important part of a whole range of initiatives aimed towards developing a smarter - and more competitive - Australia.

Already introduced as part of some training schemes in Australia, competency assessment is about to play a much wider role. As one of the changes associated with award restructuring, it's designed to make maximum use of the skills of the workforce.

As in other areas associated with award restructuring, it's about unions, employers, employer bodies and employees working together to make training relevant to the needs of today's workplace. It's about developing more effective ways of producing quality goods and services while at the same time opening access to appropriate training as well as providing more satisfying and responsible jobs for all. It's about payment based on merit, and the recognition of skills no matter how or when acquired.

Competency assessment is also concerned with recognising the skills people already have - and about encouraging them to develop more skills in the future. It's about not wasting employers', employees' and trainers' time, developing skills that are already there. And it's about productivity - about encouraging competence, with the flexibility and adaptability that competence implies. These are essential qualities for workers in today's fast-changing workplace.

As with any innovation, there will be problems to be overcome and wrinkles to be ironed out. Most of the pieces are not yet in place. Not everyone agrees on the right way to go. It will be up to industry and unions, employers and employees to reach agreement on a wide range of issues. This media package suggests just the broad outline of the way ahead.

It will no longer be appropriate - if it ever were - for just part of the workforce to become skilled. It is in the interests of efficiency as well as of equity, that appropriate and lifelong training and education be available to all.

As award restructuring processes are implemented, and jobs are redesigned to encompass a wider range of duties, the conceptual will be put back with the practical. The same person who does the job will make decisions about how to do it. So the process of skill formation will have to be rethought - not only to incorporate all the generic skills and all the extra types of background information we've already indicated, but also to ensure that levels of literacy and numeracy are high.

In addition, the on-the-job component of training and education will need to become greater than in the past. In many areas, learning through experience is shown to be more effective.

It's becoming increasingly important that managers and employees have a thorough understanding of process as well as outcomes. This includes both:

- the learning process by means of which people become competent; and
- the process by which employees manage the total workplace situation.

Training alone will not produce competent workers. Only broad-based education and training, encompassing the range of areas we've indicated will enable workers to achieve competence.

How Competent?

But training and education are not enough. We need to know just how competent people are - and how they measure up to predetermined standards. So assessment of their competence is needed. This will allow industry, unions and organisations such as TAFE to ensure appropriate training programs are developed to meet the standards required. It will also mean that the skills of all members of the workforce will be recognised - no matter how or where those skills were developed.

Every worker knows the importance of the skills that are picked up through experience. Whatever our field of work, we develop and add to our skills as we go along. As an experienced worker, we can look back on the skills we had when we started a job or finished a course and realise just how far we've come. In the past, however, many of the skills gained through experience have not been recognised.

Probably we've all known people who are as skilled as tradespersons, or as professional workers, but who haven't undertaken a formal course of training. So they lack that vital bit of paper - that diploma or certificate that says they are 'qualified'. Mostly, these people have not been given the responsibility they deserve - or the pay packet. And it's not only the workers themselves who have been disadvantaged because of this, but also industry, which has not made full use of the skills of its workers.

Competency assessment can help to ensure that this inefficient and inequitable neglect of many people's skills will become a thing of the past.

Being assessed as competent at a particular level of employment may not only lead to increased pay and more responsibility, it should also mean a step forward on a career path.

In line with award restructuring, the concept of the dead-end job is on the way out. As industry and unions have worked on the new occupational classifications, one of their aims has been to develop career paths for all employees. Workers, by meeting prescribed skill levels through experience and/or training and education, will have the opportunity to work their way progressively up through a number of job classifications - possibly to full professional standing. For workers, a competency assessment can be a milestone on a career path, with further education, training and experience ahead.

Definition of Competence Used in the Media Package

Being competent, then, is more than having the skills and knowledge required. It's being able to bring the skills and knowledge together and use them appropriately in a range of situations - including situations that may be quite new. It's being able to cope under pressure, to plan and to manage the different aspects of the job or the situation - including such aspects as dealing with other people.

If we wish to give a formal definition of competence, we could say:

> Competence is the integration and application of the knowledge, skills and personal attributes required for the successful performance of life roles. Competence implies the ability to deal with novel as well as established situations.

How Do We Assess Competence?

In the course of our daily lives, we often assess - or evaluate - someone's competence. We do this by collecting evidence and weighing it against an appropriate standard. Usually, we collect our evidence and form our judgement without really thinking about it.

When we form a judgement of a neighbour's driving, for example, we will probably base it on different forms of evidence - our own experience of the neighbour's driving if he/she gives us a lift to the station, what he/she tells us him/herself, (does he/she tell many stories about close shaves on the road?), or what other people tell us about him/her. (Does another neighbour warn us not to drive with him/her?).

Then - again without really thinking about it - we weigh this evidence against the standard of competence we expect from a good driver - a standard we've unconsciously arrived at over the years. Our standard will probably relate to bringing together the skills of judgement and co-ordination required to control the car in a range of situations with the knowledge necessary to respond appropriately to the constantly changing situation.

As a result of our deliberations, we may decide to politely decline our friend's next offer of a lift to the station.

Workplace Competence

Assessing people's competence in occupational roles is in many ways no different from the neighbour's competence while driving.

In the workplace, assessing competence will involve collecting sufficient evidence to enable us to decide whether someone can perform an occupational role to the standards required in today's changing workplace.

But to ensure our assessment is valid and reliable, we'll have to go through a much more systematic process than we do in making a personal judgement about our neighbour's driving.

Let's start this process by giving a formal definition of competency-based vocational assessment.

> Assessing vocational competence requires the collection of sufficient evidence to decide if a candidate will perform the occupational role to the standards required in employment, in both new and established situations.

On-going consultation involving unions, employees and employers or employer bodies is an essential part of the development of assessment and education and training programs. The advice and assistance of expert bodies such as TAFE may be considered appropriate.

In developing competency-based education, training and assessment programs we start with the work. We analyse the work into the knowledge, skills and personal attributes required. We decide on the standards of performance desired. And we look at the requirements of the future as well as the present. Competency-based education and training programs aim to develop the necessary knowledge, skills and personal attributes identified to the standards specified in the work analysis.

Competency-based education and training programs may be (but are not necessarily) modular. Modular programs are flexible, but care must be taken to avoid fragmentation of learning and to ensure the development of the full range of knowledge, skills and attributes required for competence. Competency-based training programs may be self-paced, but self-pacing demands a range of resources which take time and money to produce. Addressing issues of developing basic literacy and numeracy skills present special difficulties in self-paced programs. Competency-based education and training and/or assessment programs have the following features:

- Assessment is criterion-referenced;

- Required competencies and standards are clearly specified;
- Required competencies and standards are made public;
- As far as possible, assessment is of the overall ability to perform;
- Candidates are assessed according to standards and activities that are work-oriented;
- In workplace assessment of performance, it does not matter how the competence was acquired;
- Competency-based assessment should be accessible on demand;
- Records may be kept of candidates' competencies and/or candidates are issued with certification of competency.

What's So Different About Competency Assessment in the Workplace?

Perhaps the image you carry in your mind of assessment is of tests and examinations and long rows of pale students feverishly writing with one eye on the clock in an atmosphere of deathly silence. For the most part, competency assessment should be a far cry from this. Most commonly, we can expect assessment of competence to take place in the everyday work environment. However, the place and the method of assessment will depend very much on just what competencies we're trying to assess.

What Method?

If we want to assess underlying knowledge, we're likely to use a different method of assessment from the method we'll use if we're assessing performance. The following table adapted from the National Council for Vocational Qualifications Information Note 4, **Assessment in National Vocational Qualification**, (November 1988, p.6) makes this clear:

PERFORMANCE EVIDENCE	**KNOWLEDGE EVIDENCE**
from	from
- natural observation in the workplace	- oral questioning
- extracted examples within the workplace	- open written answers
- simulations	- multiple-choice tests

In the driving test situation, for example, there is time to assess only a few skills so the most important are selected - for example, being able to start, pull out from the kerb safely, brake, reverse, negotiate a right-hand turn, perform a three-point turn, and so on.

Selecting situations where the crucial or critical knowledge, skills and attitudes may be exhibited is an important part of assessment design.

Observation in the Workplace

What better place is there to collect evidence of workplace competence than in the workplace itself? And in fact, observation of workplace performance may in many circumstances be the most valid, reliable and cost-effective means of assessment. Just as driving tests would be less hair-raising but less valid if they were conducted in a deserted parking lot, so the more removed assessment is from the real workplace situation, the less likely it is to be a valid assessment of workplace performance.

Assessing competence outside the workplace is like assessing an actor off the stage. He/she may be great at putting on make-up. He/she may be great at learning his/her lines. But he/she may freeze up when it counts - the minute he/she opens his/her mouth in front of a live audience.

In the workplace, assessment can occur in real work situations using real materials and equipment. The competencies to be assessed may be clearly evidenced in the normal course of work.

If assessors are based in the workplace, assessment may take place over a period of time. If assessors are from outside the particular workplace, care needs to be taken that crucial skills will be evidenced in the activities performed during assessment.

Observation should be unobtrusive, and should interfere as little as possible with the usual performance of duties.

Setting up Special Situations

For some competencies, workplace assessment may prove too difficult or too expensive. Special equipment may be required. Or assessors may wish - for reasons of cost - to assess a number of candidates at the same time. But in most cases, conditions should duplicate those of the real workplace situation.

Simulation

Sometimes it may be too dangerous to assess a competence in the real work situation. In these cases a simulation is used. For example, in assessing the competence of electricians, it is clearly desirable that an error should not have fatal consequences. So a simulated situation may be set up - resembling the real thing in most respects - but protecting the safety of the candidate and the assessor.

Sophisticated simulations are set up when pilots are trained and assessed on procedures for coping with unexpected and/or dangerous situations. Flight simulators are very much like the real thing - from the cockpit - but safely installed at ground level.

Early simulators were less successful. They gave visual simulation of flight, but did not simulate the plane's movements. The result? Many pilots could not perform to standard because they became nauseous. Their eyes told them one thing and their bodies told them another. Which just goes to show that when we introduce changes to the situation, we may come up with a different result.

Sometimes, however, simulations are clearly necessary - even when they are as costly as the flight simulators. If we balance their cost against the cost of the lives and equipment which depend on of the pilot's skill, they can be seen to be cost-effective.

Asking Questions

Sometimes performance of required skills may not be enough. No performance can cover the range of situations likely to be met in the workplace, and no performance can indicate that a candidate is fully aware of the reasons for proceeding in a certain way or carrying out prescribed duties.

It will often be necessary to assess the knowledge that underpins performance. In our driving test situation, knowledge is assessed before a learner can hold a learner's licence. Having this underlying knowledge is an essential part of the competence. There are many situations that will not be met in a fifteen minute driving test, and the written test ensures that the most important of these are covered.

Even in a written test, of course, only a small number of possible situations can be included. As in the performance test, sampling is used.

The type of written test administered to learner drivers is a multiple choice test: the candidate has to select the correct answer from a group of answers. This type of test is suitable for administering to large numbers of people, as it's quick and easy to mark. However, good multiple choice tests are not easy to set, so if only a small number of candidates are being assessed, it may not be cost- and time-effective.

Written tests requiring candidates to answer at greater length in their own words may be applicable in some situations - although here, literacy levels will also be tested, and we must be sure that this is either part of what we want to assess, and if not, that no candidates will be disadvantaged by this mode of assessment.

Tests where long written answers are required may also be less reliable, as they leave more room for subjective evaluation on the part of the assessor.

Oral Questions

Oral questions, either in informal conversations, or as more formal questions and answers have a number of advantages. They:

- do not add literacy to the skills being assessed;

- allow assessors to give candidates every opportunity to show what they know;
- can be carried out in the course of normal work.

However,

- they may be less reliable as the skills of the questioner may vary;
- some assessors may ask more difficult questions or use more difficult language;
- there is no record of the interview.

Using Computers

Computers may be used in assessment procedures, either in a simulation situation or in administering question-and-answer type assessments.

Computers can:

- store a range of assessment items to be administered as needed;
- give candidates immediate feedback on their performance;
- record results;
- evaluate assessment procedures.

However, some candidates may feel intimidated by computers and would need to be familiar with their use.

Projects and Assignments

Sometimes it will be appropriate to set projects and assignments. For example, a graphic designer might give as evidence of competence, a project in which he/she designed a series of posters advertising a particular training program. An assignment is simply a shorter version of a project. As an assignment, a person wishing to become an advertising copywriter might be asked to write the copy for a newspaper advertisement advertising the training program.

Assignments and projects may be useful in providing access to assessment to people outside the local workforce.

Products of Achievement

One way people may show they have certain skills is to produce evidence of what they've done in the past. This may take the form of something they have produced - such as craftwork or works of art, articles they have written or videos they have produced. Or they may have written reports of projects they have taken part in, or references from previous employers.

Evidence of this nature may prove sufficient proof of competence in some situations and - as with assignments and projects - its acceptance may open up access to qualifications and employment to people outside the normal workplace situation.

In Brief,

Candidates may be assessed by observing their performance:

- in the workplace;
- in a situation especially set up for assessment purposes;
- in a simulation of a workplace situation (specially useful where it would be dangerous to assess in the real workplace).

To assess underlying knowledge they may be questioned:

- orally;
- in multiple choice tests;
- in written tests requiring longer answers;
- by computer.

Evidence of competency may be given:

- as a portfolio of past achievements;
- in the form of assignments or projects.

Conclusions

Competency assessment in the workplace:

- is part of a process of removing rigid barriers to training and recognising competence at a wide range of levels;
- can pave the way to future training and education;
- enables people to take a step forward on a career path;
- is an important element in developing and making use of the skills of the workforce;
- gives management precise information on the skills of its employees, facilitating the planning of education and training needs;
- ensures skill standards will be met.

Part Two: The Media Package

Imagine the following scene ... a sleek, white, ultra-modern sea vessel called the 'SS Assessment', and skippered by a character called 'Captain Competence' pulling alongside a struggling, perhaps even ... sinking! vessel called the 'Economy' which is skippered by 'Max' a somewhat universal character.

'Max' is taken on board the 'SS Assessment' by 'Captain Competence' and they head off on a 'voyage of discovery' to the land of 'Competency Assessment'. This is the first scene in the video called 'Captain Competence' which is a feature of the media package we are presenting to the Conference, **Assessment and Skill Standards on Vocational Education and Training** this week. As we will be showing you the video at the end of our workshop session, we will leave you in suspense about Max's experiences in the land of 'Competency Assessment'.

Project Concept and Development

In September last year the Assessment Research and Development Unit (ARDU) submitted a proposal to TAFE management to develop a media package on competency assessment. This proposal was devised in response to requests from ARDU's clients (TAFE teachers and industry) for help with the implementation of competency-based education and training programs.

The Assessment Research and Development Unit offers clients a wide range of education services including a consultancy on assessment policy and practice during the accreditation of TAFE courses; workshops on how to develop examinations and tests; assistance with the development of assessment schemes for vocational education courses; and, research and development on a variety of vocational education topics.

Many of our clients' requests for assistance arose from their desire to gain information on the assessment of competence, when it became apparent that NSW TAFE was moving towards a systematic application of the competency-based approach to curriculum development and delivery.

Furthermore, competency-based education and training was being recognised by vocational education institutions, industry and Australian governments as one of the strategies necessary to improve Australia's competitiveness in the global marketplace.

The media package was developed with an awareness that competency assessment cannot be implemented in isolation from competency-based education and training programs. However, as the officers of the Assessment Research and Development Unit are specialists in educational assessment and evaluation, we felt that our time and energy would best be spent, initially, on applying our expertise to the development of high quality information and services on the specific area of competency assessment, but set of course, within the context of the broader field of competency-based education and training. There are a variety of excellent resources now available, and in the pipeline, which will provide information and resources on the broader area of competency-based education and related issues, such as award restructuring, and which can be used in conjunction with the package we are presenting to you today.

Industry Consultancy

Early in the project we recognised that there would need to be extensive consultation with industry on the content of the media package. We approached the Employers' Federation of NSW and the Labor Council of NSW with the aim of including their representatives in the research and development phase of the media package, and thereby ensuring that the perspectives of both unions and employers were reflected in the content of the project.

NSW TAFE, does however have sole ownership of, copyright and editorial rights to the video.

The subject matter in the package is not intended to be prescriptive nor does it deal with all the issues related to competency assessment, or all the implications of the introduction of assessment of competence in the workplace. With competency assessment, most of the decisions have yet to be made. To succeed, all parties, including the candidates for assessment, employees, union officials, managers, employers and trainers must be involved in the decision-making.

The package does, however, present a well-researched, considered, balanced, and we hope, entertaining introduction to competency assessment in the workplace. It should be viewed as the first of a series of training resources which need to be developed on this issue and related issues.

Funding

As a result of consultation with industry, it was decided that financing of the package would be sought through a joint submission for funding to the Education and Training Foundation of NSW (ETF), from TAFE NSW as the vocational education and training body, and, the Employers' Federation of NSW and Labor Council of NSW as the industry supporters. A seeding grant was obtained from the ETF and further funding was obtained from the Australian Committee for TAFE Curriculum (ACTC).

What the Media Package Has to Offer

The package is designed to introduce the issues and practices associated with the assessment of competence in the workplace to a wide audience. It can be used in a variety of different situations:

- as a workplace resource to introduce the theory and practice of competency-based assessment to union representatives and members, employees, potential employees, employers and managers;

- as a 'train the trainer' package for teachers/trainers/facilitators;
- as a classroom resource, for potential employees, for example, students in vocational education and training institutions, universities and high schools.

The content of the media package is based on an extensive search and thorough analysis of Australian and international literature on competency-based education and related topics, and, on an examination of some examples of competency-based assessment in practice.

The package consists of:

- a video;
- a workshop outline;
- background information;
- handouts for workshop participants;
- masters for overhead transparencies;
- a resource list.

The video aims to introduce for discussion, some of the main issues involved in competency assessment in the workplace. The video is called 'Captain Competence'. It stars well-known actor Bruce Spence in the lead role and presents the issues in an entertaining and meaningful way for all parties involved in assessing occupational competence.

The issues covered by the video include:

- why should competence be assessed;
- assessing total competence;
- recognition of previous relevant experience;
- who could assess competence.

The workshop consists of ten sessions which could be covered in a full-day workshop and includes topics such as:

- essential features of competency assessment;
- why assess competency?

Session 9 on 'How to Assess' covers some quite technical aspects of assessment.

Each workshop session offers the workshop leader:

- a suggested timetable and sequence of activity for a full-day workshop;
- content outlines for each session;
- a guide and reference materials.

Workshop participants should understand that, at all stages of developing and implementing the assessment program, consultation between all the parties involved in competency assessment is critical. The workshop should be viewed as the first step in the consultative process and should be used with due reference to the particular workplace where it is being introduced.

In line with this process, participants' suggestions should be valued as genuine contributions to the development of a competency assessment program in their own organisation.

The print-based background information while introductory, is substantial in size and would be particularly useful for the person who conducts the workshop. The print material answers the following questions:

- What is competence assessment?
- Why assess occupational competence?
- What do you assess?
- Who assesses occupational competence?
- When should occupational competency be assessed?
- Where should occupational competency be assessed?
- How should occupational competency be assessed?

The print material has been linked to the video by a series of quotes from the video script at the start of each section.

The handouts are designed to be photocopied and distributed to the workshop participants by the workshop leader. They include:

- a summary of the issues and practices involved in assessing competency in the workplace;
- examples of competency assessment in practice;
- notes on how to assess competence in the workplace.

The masters for the overhead transparencies are directly linked to each workshop session.

The resource list offers a variety of resources in a variety of media; for example the Staff Development Programme from the United Kingdom contains 3 videos and accompanying notes and overhead transparencies. This list also includes some excellent Australian print resources.

SUMMARY OF DISCUSSIONS FOLLOWING CATHY BARRY & PETER DAVY'S PAPER: MEDIA PACKAGE: ASSESSING COMPETENCY IN THE WORKPLACE

It was generally agreed that the package describing competency assessment in the workplace was an excellent workplace resource for employers, employees and workplace assessors and in fact could serve a number of functions including assistance in the task of translating the requirements of old awards to new awards. A number of issues were raised relating to the package as well as a number of points raised as a result of discussion of the package.

- who will actually undertake workplace assessment is a contentious issue: the packages merely list a range of areas from which assessors could be chosen rather than making recommendations. Also it was recognised that the conditions for selection of assessor/trainers would vary from industry to industry as would the standards setting procedures.
- standards were not emphasised in the package chiefly because the appropriate parties for setting standards were unable to reach agreement.
- the issue of training workplace assessors and its importance was dealt with fairly comprehensively. Monitoring workplace assessors was also perceived to be a significant issue. The question of funding of training for workplace assessors raised some concern since it most logically depends on the size of the enterprise. Smaller enterprises may not have the resources sufficient for effective training and strategies such as 'assessment events' may need to be considered.

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PART 3: OTHER PRESENTATIONS

THE CHALLENGES FOR AUSTRALIA IN VOCATIONAL EDUCATION AND TRAINING

Hon J S Dawkins MP
Minister for Employment, Education and Training

Delivered on behalf of Mr Dawkins by Mr Rod Sawford, MP

Thank you for your welcome.

I must begin by offering apologies for the Minister for Employment, Education and Training, who is unable to be here himself.

However, it is a privilege to be here on his behalf to open your conference this morning.

This conference and workshop, **Assessment and Standards in Vocational Education and Training** has obviously been well planned, and we have before us an impressive list of conference and workshop contributors and participants.

Your conference is certain to be yet another significant contribution by the TAFE National Centre for Research and Development to national debate on vocational education and training.

The issues to be addressed at this conference have far-reaching implications for vocational education and training in Australia, and focus on the capacity of the education and training system to maximise its contribution to the social and economic development of the community.

Vocational education and training have had a higher profile in national policy making in the last five years than at any previous time, mainly because of the growing recognition of the importance of the skills of Australia's workforce to Australia's international competitiveness.

Australia's post-war pattern of industrial development has been dominated by an inward-looking, protectionist approach in industry policy. The primary focus was derivative production behind tariff barriers, to meet import-replacement domestic demand. Because of our mining and agricultural exports, Australia was prosperous enough in those post-war years. However, with the benefit of hindsight we an see now that they were years of lost opportunity. In that period, little attention was given to research and development, or to building within Australia, a capacity for world-class innovative products and processes, or efficient national service industries which must of necessity underpin our overall competitiveness.

This Federal Labor Government has been working hard to change Australia's industrial orientation so that we can become more internationally competitive. This has involved, for example:

- Deregulation of our financial system;
- Provision of one hundred and fifty per cent tax incentives for industrial research and development;
- Award restructuring in our industrial relations system;
- Public Service reforms;
- Changes to government business enterprises;
- Reductions in tariffs;
- Assistance to export-oriented companies; and
- Reforms in all levels of education and training.

Certainly, changes in our vocational education and training system are not sufficient in themselves to improve Australia's international competitiveness but they do have a necessary and essential part to play in the overall mix of the Commonwealth Government's package of micro-economic reforms.

The award restructuring process is very important for Australia's economic future.

Firstly, it is developing a foundation for more flexible work practices, through broad-banding of occupational classifications, and the elimination of many of the demarcations and overlapping of duties that have plagued our workplaces for decades. That is a direct efficiency benefit.

Secondly, it is relating our wage formation criteria to demonstrated skill levels, within structured career paths. This is replacing the restricted skill margins and limited career structures that have previously been a disincentive to skill formation. When award restructuring has progressed through the national industrial relations system, Australia will at last have awards and career paths that offer positive incentives to individual workers to obtain, maintain and improve their skills.

This process will provide major and continuing benefits to Australia's international competitiveness. It is not a simple or dramatic process but, rather, a complex and slow-moving one, and while I realise that it is not usually newsworthy - you'll find far more column inches devoted to whether South Australia should enter a team in the AFL - it is nevertheless a watershed in terms of our attitude to what is generally called 'work'.

The positive incentives which award restructuring will provide will also produce a major increase in demand for vocational education and training.

Earlier this year, a Commonwealth/State Training Advisory Committee (COSTAC) consultancy study of the costs of award restructuring indicated that there is likely to be an increase in demand for vocational education and training provided by TAFE colleges of at least forty per cent. The Deveson Committee, of which I am sure you are all aware, has been examining the resourcing of this increase in demand for vocational education and training. We do expect, incidentally, that the Deveson Committee will be reporting in the next week or so.

Apart from resourcing this general increase in demand, award restructuring will also have major implications in terms of access and equity. Vocational education and training will become a more certain means of improving individual occupational and income earning prospects as a consequence of award restructuring. Clearly, equitable access to the means of acquiring skills will also become even more important than it has been in the past. That is, as skills become more highly valued in the workplace, fair access to vocational education and training will become an even higher priority social justice issue.

The national standards for vocational education and training which are being developed by industry in conjunction with the National Training Board are to become the basis for a nationally consistent system of competency-based training.

The fact that these national standards are being developed by industry,and that the National Training Board will periodically bring the standards up-to-date once they are established, is very important. It means that the national standards will become the basis for a system of vocational education and training more responsive to market forces than the existing one. Furthermore, the nationally consistent nature of the reformed vocational education and training system will assist in developing a more efficient training market and a more efficient, national skilled labour market.

In the memorandum of understanding which formed the basis for establishing the National Training Board, States and Territories have undertaken to provide vocational education and training that is consistent with those national standards. That is a crucial change, but one which will take years to fully realise in practice, mainly because it is so ambitious and far-reaching in its ultimate effects. It is a significant achievement in Federal-State cooperation.

The changes I have referred to will not involve merely a cosmetic 'repackaging' of old courses. Time-serving on the job, or passing formal exams in off-the-job training will no longer be sufficient. There will be a closer integration of delivery and assessment of both on- and off-the-job training, via training contracts. Most importantly, progress to qualifications will require demonstrated attainment of competencies specified by the national standards.

Later in this conference you will receive a detailed presentation of results from the COSTAC project which has developed an inventory of competency-based courses in TAFE. That project was led by Mr Peter Thomson, the Deputy-Director of the TAFE National Centre for Research and Development.

Without wishing to steal Peter's thunder, I would like to make three observations on the findings of this study. Firstly, the study shows that there is a very long way to go before the jointly-adopted objective of Commonwealth and State Ministers of a national competency-based training system is achieved. The study found that, nationally, only thirteen per cent of eligible courses were competency-based. Secondly, only fifteen per cent of the courses studied required that instructors had been given professional development in delivery and assessment of competency-based courses. Thirdly, in forty-three per cent of the courses studied (which are more competency-based than most in TAFE colleges) it was possible to 'pass' without attaining all of the specified competencies.

Obviously, a great deal remains to be done before we achieve a nationally consistent vocational education and training system in which qualifications depend on demonstrated attainment of nationally specified competencies.

While competency-based training will provide a basis for quality assurance in vocational education and training, in terms of demonstrated attainment of specified competencies, it can and should operate in such a way that it minimises the 'failure' stereotyping that is so typical of traditional modes of assessment, and which has such destructive psychological effects on individuals. The emphasis of traditional 'normative' assessment, which involves designation of a proportion of candidates as 'failures', is replaced by a 'criterion-referenced' focus on identifying and specifying what the individual needs to attain in order to reach the specified level of competence.

Another major benefit of the development of a competency-based training system is that it provides a framework for recognising prior experience and learning on the objective basis of demonstrable competencies, however they might have been attained.

This will be critical in relation to the award restructuring process, because recognition of prior learning and experience will be directly relevant to how much someone is paid.

Women and migrants are probably going to have the most to gain from better arrangements for recognising prior learning and experience, because they have been most disadvantaged by the existing arrangements.

Recognising prior learning and experience - that is, recognition of actual competence - is an area in which unions, industry and government are strongly committed to change.

The specific arrangements for change are being considered by the COSTAC Working Party on Competency-Based Training, but, in principle, it is essential that our vocational education and training system should recognise competencies however, and wherever they are attained.

To this end, it is necessary that each educational sector, public or private, secondary or tertiary, should accord full recognition to competencies attained elsewhere, whether formally or informally. This principle is easily stated,and its practical value readily acknowledged, but overcoming the jurisdictional, organisational and other obstacles to its practical attainment is proving to be a formidable task. Nevertheless, it is essential that it be done effectively, and as soon as practicable.

Registration of training providers, accreditation of training courses and certification of individual competency attainments are State responsibilities, but it is essential that arrangements are developed so that they can be undertaken on a nationally consistent basis, as a foundation for national recognition and articulation arrangements.

Despite considerable efforts on the part of the Commonwealth to promote greater cooperation between States and Territories to this end, thus far significant progress has proved elusive. The Commonwealth/State Training Advisory Committee (COSTAC) is pursuing investigations towards an agreed national policy. It has already published a discussion paper on the present arrangements. However the policy statement on future directions will not be finalised before April 1991.

A major equity and efficiency issue in relation to vocational education and training is the recognition of the skills of migrants.

It is probably impossible to calculate the economic cost of the wastage of talent that has occurred since large scale migration began in 1949, through steadfast neglect or wilful refusal to acknowledge the skills which migrants have brought to this country.

It is certainly impossible to put a monetary value on the social costs of this wastage, in terms of shattered hopes and lifelong frustrations.

As Mr Dawkins pointed out in **Improving Australia's Training Systems** in April 1989 there is a need for urgent action to halt this wastage of skilled people, and the National Office of Overseas Skills Recognition (NOOSR) has been established to promote progress in this area.

In 1990, the International Literacy Year, there is another issue I would like to talk about - literacy. An accessible, high quality vocational education and training system will not be of great benefit to those individuals who are obstructed by their own illiteracy. In Australia today, approximately one in seven workers cannot read and write effectively.

A lack of functional literacy and numeracy skills severely restricts an individual's access to many basic rights and services, but this is particularly true of those participating in the vocational education and training system. Literacy and numeracy are basic 'enabling skills', which are required for successful participation in the mainstream vocational education and training system. This means that special remedial programs are required to equip individuals with these necessary 'enabling skills'.

That is why the Australian Government is providing $40 million in extra support programs in 1990, which is the International Literacy Year. This $40 million package will include administrative costs and:

- $13.5 million for literacy programs in TAFE and Adult Education

Centres,

- $10.3 million for literacy programs under the new active employment strategy, and
- $15 million for literacy programs in disadvantaged high schools.

These contributions underline the Commonwealth Government's continuing commitment to greater accessibility and equity in a high quality vocational education and training system.

TAFE is going to be faced with greater challenges and even greater demands for responsiveness to new requirements than it has in the past.

The Commonwealth has shown its willingness to assist TAFE. In the current financial year, Federal funding for TAFE has continued to grow, with $355 million being allocated, a growth of more than 1.7% in real terms over last year. There has been 4% real growth in recurrent expenditure on TAFE by the Commonwealth, at a time when some State Governments have reduced funding.

The challenge of developing competency-based training in TAFE will present TAFE colleges with the need to adapt courses, develop the skills of staff, and, in some cases, to modify infrastructure.

TAFE will also be facing progressively more competition from private providers, who will also be pursuing the extra demand for training that the training guarantee and award restructuring are generating.

Governments at all levels, and the industrial parties, will be expecting the more entrepreneurial approach that is developing in TAFE (at different rates in different places) to continue and accelerate. That is the only way that TAFE will be able to meet the challenges ahead.

Conclusion

In conclusion, Australia's vocational education and training system must provide flexible access in the interests of both efficiency and equity. Our nation cannot afford the wastage of talent, nor the low productivity of those whose skills are not developed and effectively utilised.

At the same time, if it is to meet the social and economic development needs of Australia, our vocational education and training system must strive for progressively higher quality standards; producing trained personnel who can demonstrate the attainment of market relevant competencies, according to defined national standards. In this way, Australia's vocational education and training system will play its part in promoting most effectively the well-being of the people of Australia.

SPEECH BY THE MINISTER OF EMPLOYMENT AND FURTHER EDUCATION

Hon Mike Rann, MP
Minister of Employment and Further Education

I am delighted to be present this morning at the opening of your national conference on **Assessment and Standards in Vocational Education and Training**, and I am pleased to be sharing this opening with my friend and colleague, John Dawkins.

Ever since the emergence of ideas reported in **Australia Reconstructed**, industry and governments have been developing ways and means to improve the skill levels of the workforce to achieve internationally competitive standards.

The future economic performance of this State and the nation rests on how well we meet that challenge.

As Minister of Employment and Further Education, I have been able to see at close quarters how my Federal colleague, John Dawkins, has led, cajoled and challenged the education and training community to restructure and modernise at all levels as well as presenting a few challenges such as the training guarantee to industry.

I am aware that there are some who say that it has all happened too quickly. To my way of thinking, the future will show that we have acted in the nick of time.

It is encouraging to see the substantial progress that has been made. There are no short cuts to improving the organisation of work or upgrading the skills and knowledge of the workforce. Substantial changes have been made and in many cases are still required in attitudes, approaches, industry awards and agreements, job classifications, training arrangements and the content of training.

It will take years of continuous and persistent attention to these issues to achieve all that has to be done.

A wide range of mechanisms and resources to support the restructuring is being provided by governments, but ultimately these are tasks and responsibilities which only industry can assume.

At the peak level, employers and trade unions have established significant common ground for the required reforms and structural change. This consensus must be maintained, further developed and fully utilized. However, at the local and enterprise level, there is much work to be done to translate the 'theory' into practice.

This responsibility sits squarely with management of both large and small enterprises.

Unless there are substantial changes to management and work practice there will be only marginal improvements to Australian industry's productivity and international competitiveness, for in today's world, to stand still is to flounder.

For most enterprises the issue of productivity is wholly or mainly one of human resources. The responsibility for the effective use of human resources is one of the most demanding which faces management.

Management at all levels needs to be strongly motivated to recognise opportunities for improving the use of human resources, but none more so than those at that first level of management. Yet if there is a gap in the education and training of Australia's workforce it is surely in terms of first line management.

These people, at the cutting edge of success for the individual firm, for industry and for the economy, are essential ingredients for the success of award restructuring and improved productivity performance.

They know more than most that the management process is not only about the use of managerial techniques, the taking of rational decisions based on well laid and carefully designed plans, and the integration of the work of different groups. First line managers know that it is critically about the process of operation - the management of people.

The challenge to managers is to harness all forces for change and work in co-operation with employees to achieve better outcomes. Award restructuring provides managers with an opportunity to make the best of the talents and potential of the workforce: an opportunity to provide skill development not for the few but for all workers, and an opportunity to work collaboratively with the workforce to improve quality and competitiveness. It provides above all, an opportunity to recognise that our workforce can be a skilled and productive one if their energies can be harnessed rather than confined and limited.

I am sure that you, the managers here today will bear those considerations in mind as you consider the more sophisticated practices and arguments about assessment and standards of vocational education and training.

For whatever the potential for achieving improvements and however carefully laid are the plans to maximise that potential, ultimately success will be dependent on the people who have to take on the task.

The South Australian Government has made the task of developing a skilled workforce which can hold its own on the world stage, a top priority.

In these times of cutbacks in government sectors, and general economic slowdown, we have made a conscious decision to maintain the funding of TAFE in South Australia.

Our recovery depends on the availability of a skilled workforce now. Of course, as the economy restructures those skilled workers will be required in ever-increasing numbers. After all, what is the point in even contemplating economic recovery if we cannot deliver the skills needed to drive it?

We are developing constantly new, better and more efficient training methods. This progress is essential as demand for training is increasing at an incredible rate.

I am proud of the progress the South Australian Department of Employment and TAFE has made, particularly in the areas of video conferencing and competency-based training.

Our programs are in demand in South Australia and interstate, and even overseas in countries such as Indonesia and Hong Kong.

We can and must do better in the race to produce quality products at competitive prices. I am excited by the prospect of management, workers and governments meeting together the challenge of providing the skills which will make this happen.

In conclusion I wish you a very productive, stimulating and enjoyable conference. Thank you.

HOW DID WE GET HERE FROM THERE

Gregor Ramsey
Chairman
National Board of Employment, Education and Training

Introduction

My thanks Mr Chairman for inviting me to speak tonight, although the task of speaking to 200 at night after a good dinner is, to say the least, daunting - especially when the 200 have spent the last two days on assessments and standards.

A little voice in my head is saying - get off the conference topic quickly! I'm also happy to be able to say that I have not been constrained at all in what I might talk about by Bill Hall. I'm not sure whether that is naive faith or devious intent.

I have only recently taken on the broader responsibilities of Board Chair which involve advising on all areas of employment, education and training, or, as some would prefer us now to say, employment and skills formation. This has required me to gain a perspective on all three sectors, both in terms of changes over time and where we might be going.

In this context, I have entitled what I have to say tonight as 'How did we get here from there: a perspective on employment, education and training' - with the 'there' being post-Second World War, and the 'here' being the decade of the 90s we are about to enter.

There are some who might say we have hardly got anywhere; others, that we have come a long way, and still others incredulous - it was surely impossible to get to here and the economic mess we seem to be in from where we were in the 50s.

So, as we look back over the four decades since the Second World War we can see that each has left its stamp on our history. Our Constitution is silent about the Commonwealth's role in education and training and things might have been very different if it had been otherwise. Since Federation this area has been the prerogative of the States and Territories. I am sure it made sense in 1901, and probably made little difference to development up to World War II. A consequence has been that national development in education and training, at least to the mid '80s, was largely the sum of individual State developments and some private developments which have left a legacy of significant State-by-State differences as we enter the '90s of:

- different skill standards for similar job classifications;
- different skill and knowledge expectations on leaving school;
- State-by-State decisions about human resource needs;

- limited processes for achieving national policies; and
- State-by-State curricula, standards, examinations, school leaving ages and school structures.

A small State had all the decision-making paraphernalia of a larger State and they are just beginning to realise the costs of maintaining these differences.

It is worth noting in this context, the Prime Minister's recent speech (19 July 1990) in which he indicated that the legacy of our Federal structure could be our downfall. He indicated that we must now, not tomorrow, not by the Year 2000, but now, face the challenges and form a closer partnership between our three levels of Government. Nowhere is this more important than in education and training. We must adopt a national approach, not a Commonwealth approach or a State approach, but a national approach integrating all the players - Commonwealth, State and non-government.

As the Prime Minister said in July -

> We all need to do some fundamental rethinking - and not just governments - but the major political parties, the business community, the unions and opinion formers.
>
> The question we all have to answer is this: 'Are we ready for the 21st century'. And if the changes we need to make are to be effective, we must all be prepared to take a fresh look at ourselves - our way of doing things, at the habits, the assumptions and the prejudices of the past.

This statement becomes even more pertinent if we add the word 'educators' after the word 'we' throughout.

In his speech the Prime Minister indicated that all the issues would be on the table for discussion at the special Premiers' Conference - including education and training issues. No doubt Commonwealth and State departments are now busy preparing papers for consideration at the meeting.

In view of this, your Conference is very relevant - we may be able to adopt a national approach to assessment and standards in vocational education and training.

If we look at Australia since the War, we have followed international trends in many areas, but in education and training, an issue fundamental to the future of the nation, until recently, we have pursued nationally a laissez-faire approach overlaid with values incorporated from 'international trends'. I will now look at the 'international trend' we followed in each decade, and outline how our approach to education and training has been anything but focused on national issues, at least until now.

The '50s were the 'seed' decade, where we developed our physical infrastructure, expanded our primary products and enhanced our dependence for our wealth on our mines. We imported our skills through migration.

produced our first PhDs but did not establish a firm training base as part of the 'world of work'. The Menzies Government elected in 1949 continued and developed the thrust in the field of university education, but at the same time acted to reinforce State control of education. The university system was established for the first time with some national focus, and shared funding with the States improving the quality of university education dramatically. Universities began to undertake significant research programs, but saw themselves as part of an international community of scholars, rather than as serving Australia's developing needs for trained manpower. TAFE was the poor brother.

It was a decade of wasted opportunity in terms of developing a national framework for employment, education and training: our successful international competitors now in many senses are those that did not waste the opportunity for providing a firm training/skill development base for their nation.

We looked over our shoulders to the United Kingdom, which was the source of many of our ideas as well as our skilled personnel.

The 50s marked the end of the post-war reconstruction scheme where we gave opportunities to returned service people which we have not done before or since. It provided a concerted scheme for national development which we need again now. I hope our economic situation provides the impetus for it, in the way that the end of the Second World War provided an impetus in the 50s.

Let me now turn to the 60s, which I describe as the 'weed' decade, where new freedoms were pursued, authority was questioned, education served our personal development which was seen as largely irrelevant to our working life. Indeed, why work at all - our social system was being supported by our primary resources to which little if any value was added. The university system saw the private sector as something to be avoided: ideas were to be pursued for their own sake. The education enterprise was largely irrelevant to the work enterprise. In an attempt to counteract this, a second higher education sector was established which was intended to be vocational. Whether it was truly a vocational sector is another question. Many of us would argue that the abundance of liberal arts courses in the former colleges of advanced education sector would indicate this was not so. It appears in fact that many colleges of advanced education tried to be universities and become second class citizens rather than carving out a different niche which allowed them to be different but equal.

We looked over our shoulders to Britain and the US and took our values as an amalgam from both countries.

Where was TAFE during this time: apart from losing its diploma courses and staff to the new CAE system, it was, as always, turning out skilled apprentices and often providing a second chance in education - a role it was to take on to a greater extent during the 1970s and 1980s. There was concern, even at this time about Australia's technological backwardness. In 1964, the Menzies Government introduced limited capital assistance to TAFE and a restricted number of scholarships for TAFE students. But TAFE was to remain the poor sister to higher education and schools through the 1960s. The philosophy of 'thinkers and doers' was born, to reach its zenith in the next decade - and who wanted to be a 'doer'? One needed 'time' to think and hence because time is money, the resources went to those preparing the thinkers.

The '70s were the 'creed' decade, where new life philosophies became accepted, and the traditional church declined. A new order would dawn, supported by our national resources, from which we would take, rather than be expected to contribute. We still imported our skills as we needed them: education for all was the intent, training or skill development related to work was something considered inferior to the noble aims of a liberal education. Concerns about the nation's education system were increasingly being voiced and a review of the nation's schools, and TAFE systems were undertaken with each State coming up with a different answer. Significant resources began to flow to schools and to TAFE institutions from the Commonwealth to assist in growth, but again all this effort was subject to State control and developed largely on a State-by-State basis.

As a country, we thought we could stand alone. We did not look over our shoulders at all, and so missed out on what was happening in Europe, Japan and other non-English speaking areas. The world was beginning to pass us by. The solution was seen as more and more resources, rather than any national vision of where the education and training system should be going. All problems of disadvantage would be solved by simply pouring more money into education. We have found to our distress that this does not work. Money is a quick fix prescription, often creating problems which require more money to fix. What was needed was thoughtful consideration about how to reshape our education and training, and it has taken us until now for this reshaping to be given appropriate consideration.

The 80s were the 'greed' decade - a phrase I took from a recent **Financial Review**, where it gave the story of Saunders, the Chief Executive of Guiness now jailed for misrepresentation and falsely manipulating the share market. In Australia we 'developed', established ever larger companies by takeover and merger. We constructed hotels and resorts, hoping that overseas exchange would flow in to 'fix' our balance of payments. It was the 'Crocodile Dundee' decade of 'she'll be right, mate' which collapsed finally in a heap as we face the '90s. We were not concerned about real production and value added goods - just paper money. We have a high ratio of accountants and lawyers and a low ratio of engineers compared with other countries like Japan and Germany.

In educational terms, the structures were seen no longer to be effective to meet pressing national concerns. The binary system of higher education was dismantled, and for the first time private support for education and training was seen to be essential if we were to overcome the significant economic decline we were facing.

For the first time as the 1980s ended, we looked over our shoulders to other parts of Europe. Despite the 'Europeanisation' of so much of Australia since the Second World War through our migration flow, there was very little

European (as opposed to British) impact on our employment, education and training system.

The 1980s brought **Australia Reconstructed** - a report of the joint mission to look at why other countries seemed more successful industrially than our own. We are now looking at how some of our Asian competitors undertake their training to see whether they have anything to teach us. Of course they have: it is just that we have been slow in realising it.

The 1980s brought the first major structural changes: with training through TAFE being separated from education as in schools, both with separate administrative structures answerable increasingly to different Ministers. For the first time at the Commonwealth level, education and training were linked closely with employment in the new mega-Department of Employment, Education and Training. There is increasing debate about the integration of general and vocational education, with an increasing emphasis on the interaction among 'living, learning and working'. Our post-compulsory education and training systems are preparation for working life and adulthood. One enriches the other. They are not separate worlds. In this context, one wonders whether the acronym TAFE will remain meaningful to the end of the 1990s.

Let me now turn in more detail to the decade of the 90s which we now face. I will describe it as becoming the 'deed', (that is, we have to 'do' things - develop skills) decade or we better had, if we are to service the competitive demands of the coming decade. The eighties was a period of substantial change for all sectors of education and training. It will take a decade of the 'deeds' to carry these through in the 90s. For instance, the task is to ensure that the higher education system does produce more skilled graduates at a more efficient cost, that higher education and industry move closer together, and that we are able to develop priorities in research funding that will assist Australia's economic future.

Schools are also faced with substantial challenges - the retention rate is at 60 per cent and climbing. Schools are faced not just with increasing numbers but a variety of needs that are resource intensive of teachers and capital goods.

We must put new structures in place to link schools with TAFE, higher education and employment. The Board has set up a working party to consider the issue of post-compulsory education. It did so because it considers it to be a vital cross-sectoral issue that must be faced if Australia and its young people are not to have a terrible disservice perpetrated upon them.

Moves towards a national approach in the training area are under way. An example is the sponsor of this conference - the TAFE National Centre for Research and Development. There is also the Committee on TAFE Curriculum. I am particularly pleased to see organisations such as this in existence. The Board will be considering ways to assist in developing a national approach to curriculum.

TAFE has a central role to play in meeting these challenges: but so do employers, schools and higher education with appropriate network arrangements being essential elements. Already TAFE is grappling with the changes arising from award restructuring. Further demands will be placed upon it through changes to systems of post-compulsory education.

There have been two other very significant developments. The establishment of the National Training Board to develop national skills standards in consultation with industry, which will form the benchmarks for curriculum development, accreditation processes and the assessment and certification of individuals' skills. The other significant development is the Training Guarantee legislation which should increase the national stock of skilled people in the workforce.

The setting of national goals and priorities in TAFE, and the establishment of the Australian Traineeship System to provide broad-based entry level training for young people have also been significant developments. We now face a world where learning is becoming easier and easier outside this formal education system: how will the formal system respond to this trend?

You would all be aware of the current inquiry into training costs headed by Ivan Deveson. It is likely that the results of this inquiry will have far-reaching effects on training in Australia. Let us hope that the measures outlined above with changes in schools and higher education will enable us to make the quantum leap needed.

Where other countries such as Germany and Japan saw the development of their skill base within an employment frame for decades, we have only just come to the realisation that the effective integration of living, working and learning are essential if we are to make up lost ground.

No longer can we import the skills we need: we must develop our own. No longer can education and training be about more fulfilling lives outside work, it must be about more fulfilling lives within work. No longer can the public sector alone bear the full brunt of the education and training task. It was too large; the public system was too slow to respond and no longer could the country afford this level of public support without some effort by the private sector to lift the level of their involvement. Individuals must also be expected to make their contribution as well.

The National Board has agreed to focus on several strategic issues important to our future - these are science and technology, post-compulsory education, skills formation and recognition for disadvantaged job seekers, credit transfer and curriculum. The formulation of appropriate strategies in these areas will assist education and training in Australia to move forward into the decade of 'deeds'.

We require a tripartite approach to education and training involving governments and the public sector, employers and the private sector, and employees, their unions or professional bodies. I hope that the Board, through its activities such as its working parties, can assist this process. In the past decades, too much emphasis has been placed on the role of government and the public sector in education and training; too much emphasis on education as being separate from work; too much emphasis on the development of physical and financial resources and too little on the comprehensive development of our human resources.

As we enter the decade of the '90s, the challenge is to increase the role of the private sector in education and training, to emphasise skill development and learning within a work environment, and to strengthen our human capital if we are to become a society which adds significant value to its primary resources and has a workforce which has the level of skill needed to develop its secondary and tertiary industries in an increasingly competitive world market.

Conclusion

Fundamental to all that we do and to where we are going in employment, education and training is the issue of quality. Have we been concerned about quality in the past? Yes - if we are talking about the very best students in our society, those who will get First Class Honours degrees. No - if we mean the great bulk of our workforce; their learning has come hard, haphazardly, and with too little support.

Yet Australia needs to expand the quality of the skills in the whole workforce, not just its elite, and this points to vocational education, a reason why this Conference/Workshop is so important.

Quality is hard to define, yet we know it when we see it, and we certainly know it when we see well-trained people working in their vocational area with commitment based on the security of a high level of personal and technical skill.

I hope this Conference has taken you all a step further in your understanding of the issues in assessment and standards in vocational education and your ability to deal with them.

Thank you.

APPENDICES

CONFERENCE PROGRAM

MONDAY 1 OCTOBER 1990

8.00/ 9.00 am **Registration** Gordon Tasker/Linda Allen/Lea-Ann Harris
Susan Dean/Philip Loveder

Pre-functions Area - 1st floor

9.00/ 9.30 am ***Opening*** Rod Sawford, MHR, Member for Port Adelaide
(Representing John Dawkins, MHR, Minister for Employment, Education & Training
Mike Rann, MP (Minister of Employment & Further Education, South Australia)

Vote of Thanks - Graham Slee, AM (Chairman, National Training Board & Chairman, Board of TAFE National Centre for Research & Development

Grand Banquet Room 2 Chairperson: William Hall

9.30/10.15 am ***A - Plenary*** Graham Slee, AM
Chairman, National Training Board
Chairman, Board of TAFE National Centre for Research & Development

'The Importance of Skills Standards'

Grand Banquet Room 2 Chairperson: William Hall

10.15/11.00 am ***Morning Tea***

Grand Banquet Room 1

11.00/12.30 pm ***B - Group Discussions*** 10 groups of approximately 25 people

1 Chairperson: John Gelsthorpe
Reporter: Gwyneth Ottrey
Room: HA1 (Adelaide Room N 2nd floor)

2 Chairperson: Geoff Hayton
Reporter: Jennie Turker
Room: HA2 (Adelaide Room S 2nd floor)

3 Chairperson: Pauline Mageean
Reporter: Karen Heller
Room: HA (Grand Banquet Room 2)

4 Chairperson: David Furber
Reporter: Barbara Radcliffe
Room: HA4 (Colonel Light Room 7th floor)

5 Chairperson: Bob Williams
Reporter: John Parish
Room: HA (Daniel O'Connel Room 7th floor)

6 Chairperson: David Donaldson
Reporter: Dean Kuhl
Room: Lincoln College 6

7 Chairperson: John Skull
Reporter: Philip Loveder
Room: Lincoln College 7

8 Chairperson: Roger Porter
Reporter: Susan Dean
Room: Lincoln College 8

9 Chairperson: Pat Pearce
Reporter: Carol Dungey
Room: Lincoln College 9

10 Chairperson: Hugh Guthrie
Reporter: Mike Eddy
Room: Lincoln College 10

12.30/ 1.30 pm **_Lunch_**

Grand Banquet Room 1

1.30/ 2.30 pm **_C - Workshop Presentations_** 5 groups of approximately 50 people

1 Chairperson: Doug Smith
Speaker: Cassandra Parkinson
Research Co-ordinator
Joint Working Party of
TCF Industries
Topic: Skills Standards in the TCF Industries
Brief Presenter: Gwyneth Ottrey
Room: HA1 (Adelaide Room N 2nd floor)

2 Chairperson: Paul Byrne
Speaker: Michael Murphy
Principal Adviser
TAFE & Skills Formation
Division, DEET
Topic: Competency-based training - COSTAC Working Party Report
Brief Presenter:
Room: HA2 (Adelaide Room S 2nd floor)

3 Chairperson: Pamela Whalan
Speaker: Alan Brown
Director
Alan Brown & Associates
Bernadette Delaney
Assistant Director
Training & Development
Broadmeadows TAFE will
speak to the paper
Topic: Recognition of Prior Learning
Brief Presenters: Alan Barker
John Hird
Room: HA (Grand Banquet Room 2)

4 Chairperson: Martha Kinsman
Speaker: Russell Docking
Director
Productivity & Training
Department, WA Ministry of
Premier & Cabinet

Topic: Assessment in the Workplace - Facts & Fallacies
Brief Presenters: Ben Worsteling
Margaret McLaughlan
Room: HA4 (Colonel Light Room 7th floor)

5 Chairperson: Margaret Hardy
Speaker: Dean Ashenden
Senior Partner
Ashenden & Associates
Topic: More & Better Recognition of Vocational Training & Learning
Brief Presenters: Margaret Hardy
Glen Newton
Room: HA (Daniel O'Connel Room)

2.30/ 3.30 pm **_D - Workshops_** 10 groups of approximately 25 people

1 Chairperson: Susan Holland
Reporter: Philip Loveder
Room: HA1 (Adelaide Room N 2nd floor)

2 Chairperson: Doug Smith
Reported: Geoff Hayton
Room: HA2 (Adelaide Room S 2nd floor)

3 Chairperson: Pamela Griffiths
Reporter: Susan Dean
Room: Lincoln College 8

4 Chairperson: Judy Kell
Reporter: Rose Shum
Room: HA4 (Colonel Light Room 7th floor)

5 Chairperson: Rod Vinten
Reporter: Ken Shinkfield
Room: HA5 Grand Banquet Room

6 Chairperson: Pamela Walsh
Reporter: Susan Young
Room: Lincoln College 6

7 Chairperson: Hugh Guthrie
Reporter: Pat Pearce
Room: Lincoln College 9

8 Chairperson: Chris Hogan
Reporter: Mick Williams
Room: Lincoln College 10

9 Chairperson: Pauline Mageean
Reporter: Peter Thomson
Room HA (Daniel O'Connel Room 7th floor)

10 Chairperson: John Gelsthorpe
Reporter David Furber
Room: Lincoln College 7

3.30/ 4.00 pm **_Afternoon Tea_**

Grand Banquet Room 1

4.00/ 5.00 pm **_A - Plenary_** Ute Laur-Ernst
(Head, Education, Technology & International Studies in Vocational Education - FRG)

'The Development of the Vocational Education System (FRG) Under the Special Perspective of the 1992 European Integration'

Grand Banquet Room 2 Chairperson: Peter Thomson

5.00/ 6.00 pm **_Informal Social Gathering_**

Pre-function Area - 1st floor

An unstructured opportunity for socialising and business e.g. 'launching' of issues/outcomes/conclusions for subsequent workshops and for Conference Report.
(Bar service available)

CONFERENCE PROGRAM

TUESDAY 2 OCTOBER 1990

9.15/10.15 am ***A - Plenary***

John K Fuller
(Head of Qualifications & Standards Department,
Training Agency - UK)

'United Kingdom Reforms in Qualifications & Standards in Vocational Training'

Grand Banquet Room 2 — Chairperson: Barry Grear

10.15/11.00 am ***Morning Tea***

Grand Banquet Room 1

11.00/12.30 pm ***B - Group Discussions*** 10 groups of approximately 25 people

1 Chairperson: John Gelsthorpe
Reporter: Gwyneth Ottrey
Room: HA1 (Adelaide Room N 2nd floor)

2 Chairperson: Geoff Hayton
Reporter: Jennifer Turker
Room: HA2 (Adelaide Room S 2nd floor)

3 Chairperson: Pauline Mageean
Reporter: Roger Mathers
Room: HA (Grand Banquet Room 2)

4 Chairperson: David Furber
Reporter: Barbara Radcliffe
Room: HA4 (Colonel Light Room 7th floor)

5 Chairperson: Bob Williams
Reporter: John Parish
Room: HA5 (Club Room Lower Ground Floor)

6 Chairperson: David Donaldson
Reporter: Dean Kuhl
Room: Lincoln College 6

7 Chairperson: John Skull
Reporter: Philip Loveder
Room: Lincoln College 7

8 Chairperson: Roger Porter
Reporter: Susan Dean
Room: Lincoln College 8

9 Chairperson: Pat Pearce
Reporter: Carol Dungey
Room: Lincoln College 9

10 Chairperson: Hugh Guthrie
Reporter: Mike Eddy
Room: Lincoln College 10

12.30/ 1.30 pm ***Lunch***

Grand Banquet Room 1

1.30/ 2.30 pm ***C - Workshop Presentations*** 5 groups of approximately 50 people

1 Chairperson: Mick Williams
Speaker: Geof Hawke
Project Manager
ACTC Metals Standards Project
Topic: Skills Standards in the Metals Industry
Brief Presenter: Geoff Hayton
Room: HA1 (Adelaide Room N 2nd floor)

2 Chairperson: Barry Grear
Speaker: Peter Thomson
Deputy Director
TAFE National Centre for Research & Development
Topic: Competency-based Approaches to Training in TAFE
Brief Presenters: John Van de Graaff
Anthony Watson
Russell Docking
Roger Thompson
Room: HA (Grand Banquet Room 2)

3 Chairperson: Anna Spangler
Speaker: Derrick Casey
Deputy Head
Hotel School
Regency College of TAFE
Topic: National Accreditation of Experiential Learning for the Hospitality Industry
Room: HA5 (Club Room Lower Ground Floor)

4 Chairperson: Susan Holmes
Speaker: Pamela Walsh
Past Chairman
Australian Council of Independent Business Colleges
Topic: National Accreditation of Independent Business Colleges
Room: HA4 (Colonel Light Room 7th floor)

5 Chairperson: Philip Oswald
Speaker: Richard Sweet
Research Co-ordinator
Dusseldorp Skills Forum
Topic: TRAC - A Case Study in Giving Credit for School Experience
Room: HA2 (Adelaide Room S 2nd floor)

2.30/ 3.30 pm ***D - Workshops*** 10 groups of approximately 25 people

1 Chairperson: Geoff Halsey
Reporter: Pat Pearce
Room: HA1 (Adelaide Room N 2nd floor)

2 Chairperson: Peter Henneken
Reporter: David Furber
Room: HA3 (Board Room 2nd floor)

3 Chairperson: Susan Holland
Reporter: Malcolm Brinkworth
Room: HA (Adelaide Room S 2nd floor)

4 Chairperson: Alan Campbell
Reporter: Gladys Lehmann
Room: HA (Grand Banquet Room 2)

5 Chairperson: Pauline Mageean
Reporter: Pamela Griffiths
Room: HA5 (Club Room Lower Ground Floor)

6 Chairperson: Hugh Guthrie
Reporter: Roger Porter
Room: Lincoln College 6

7 Chairperson: Des Fooks
Reporter: John Glesthorpe
Room: HA4 (Colonel Light Room 7th floor)

8 Chairperson: Susan Holmes
Reporter: Robert Hodge
Room: Lincoln College 8

9 Chairperson: Roger Mathers
Reporter: Jenni Cooper
Room: Lincoln College 9

10 Chairperson: Alan Barker
Reporter: Vivien Carroll
Room: Lincoln College 10

3.30/ 4.00 pm ***Afternoon Tea***

Grand Banquet Room 1

4.00/ 5.00 pm ***A - Round Table : Overseas Experiences***

Panel: Ute Laur-Ernst (FRG)
John Fuller (UK)
Michael Murphy (ACT)
Peter Thomson (SA)
Margaret Hardy (QLD)
Alan Barker (NZ)

Grand Banquet Room 2

Chairperson: Graham Slee, AM

7.00 pm ***Conference Dinner***

Speaker - Gregor Ramsey
Chairperson, National Board of Employment,
Education & Training

Grand Banquet Room 2 Introduced by: William Hall

CONFERENCE PROGRAM

WEDNESDAY 3 OCTOBER 1990

9.15/10.15 am ***A - Plenary***

Peter Kirby
Chief Executive Officer, SA Department of Employment & TAFE

'Issues Affecting Assessment & Accreditation'

Grand Banquet Room 2
Chairperson: Alan Wickenton

10.15/11.00 am ***Morning Tea***

Grand Banquet Room 1

11.00/12.30 pm ***B - Group Discussions*** 10 groups of approximately 25 persons

1 Chairperson: John Gelsthorpe
Reporter: Gwyneth Ottrey
Room: HA1 (Adelaide Room N 2nd floor)

2 Chairperson: Geoff Hayton
Reporter: Bruce George
Room: HA2 (Adelaide Room S 2nd floor)

3 Chairperson: Pauline Mageean
Reporter: Roger Mathers
Room: HA (Grand Banquet Room 2)

4 Chairperson: David Furber
Reporter: Barbara Radcliffe
Room: HA4 (Colonel Light Room 7th floor)

5 Chairperson: Bob Williams
Reporter: John Parish
Room: HA (Daniel O'Connell Room 7th floor)

6 Chairperson: David Donaldson
Reporter: Dean Kuhl
Room: Lincoln College 6

7 Chairperson: John Skull
Reporter: Philip Loveder
Room: Lincoln College 7

8 Chairperson: Roger Porter
Reporter: Susan Dean
Room: Lincoln College 8

9 Chairperson: Pat Pearce
Reporter: Carol Dungey
Room: Lincoln College 9

10 Chairperson: Hugh Guthrie
Reporter: Mike Eddy
Room: Lincoln College 10

12.30/ 1.30 pn ***Lunch***

Grand Banquet Room 1

1.30/ 2.30 pm ***C - Workshop Presentations*** 3 groups of approximately 80 people

1 Chairperson: John Stalker
Speaker: Bryan Jones
Manager
Training & Development
Email Ltd
Topic: What Industry Wants from the Training System

Brief Presenters: Tony Holland
Susan Holland
Room: HA1 (Adelaide Room N 2nd floor)

2 Chairperson: Peter Shiells
Speaker: Alan Wickenton
Director
Richmond College of TAFE

Topic: Whole College Approach to Competency-based, Self-paced Delivery
Brief Presenters: Anthony Watson
Bernie Moore
Room: HA4 (Colonel Light Room 7th floor)

3 Chairperson: Rod McEwin
Speaker: Cathy Barry/Peter Davy
Chief Executive Officers
Assessment, Research &
Development Unit, NSW
Department of TAFE
Topic: Assessing Competency in
the Workplace
Brief Presenter: Gary Hilton
Room: HA (Grand Banquet Room 2)

2.30/ 3.30 pm ***D - Workshops*** 6 groups of approximately 40 people

1 Chairperson: Alan Campbell
Reporter: Roger Porter
Room: HA1 (Adelaide Room N 2nd floor)

2 Chairperson: Marlene Brell
Reporter: Philip Loveder
Room: HA2 (Adelaide Room S 2nd floor)

3 Chairperson: Anna Spangler
Reporter: Carol Dungey
Room: HA4 (Colonel Light Room 2nd floor)

4 Chairperson: Roger Thompson
Reporter: Carol Leipins
Room: Lincoln College 9

5 Chairperson: Glen Newton
Reporter: Rod McEwin
Room: HA (Daniel O'Connel Room 7th floor)

6 Chairperson: Margaret Hardy
Reporter: John Van de Graaff
Room: HA (Grand Banquet Room 2)

3.30/ 4.00 pm ***Afternoon Tea***

Grand Banquet Room 1

4.00/ 5.00 pm ***Plenary*** William Hall
Executive Director, TAFE National Centre for Research & Development

'Worskhop Summary: Challenges for the Future'

Grand Banquet Room 2

Chairperson: Des Fooks

Closure Gordon Tasker

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